

COA LDC 25-8 EB FAQ: Defining Common Terms & Acronyms



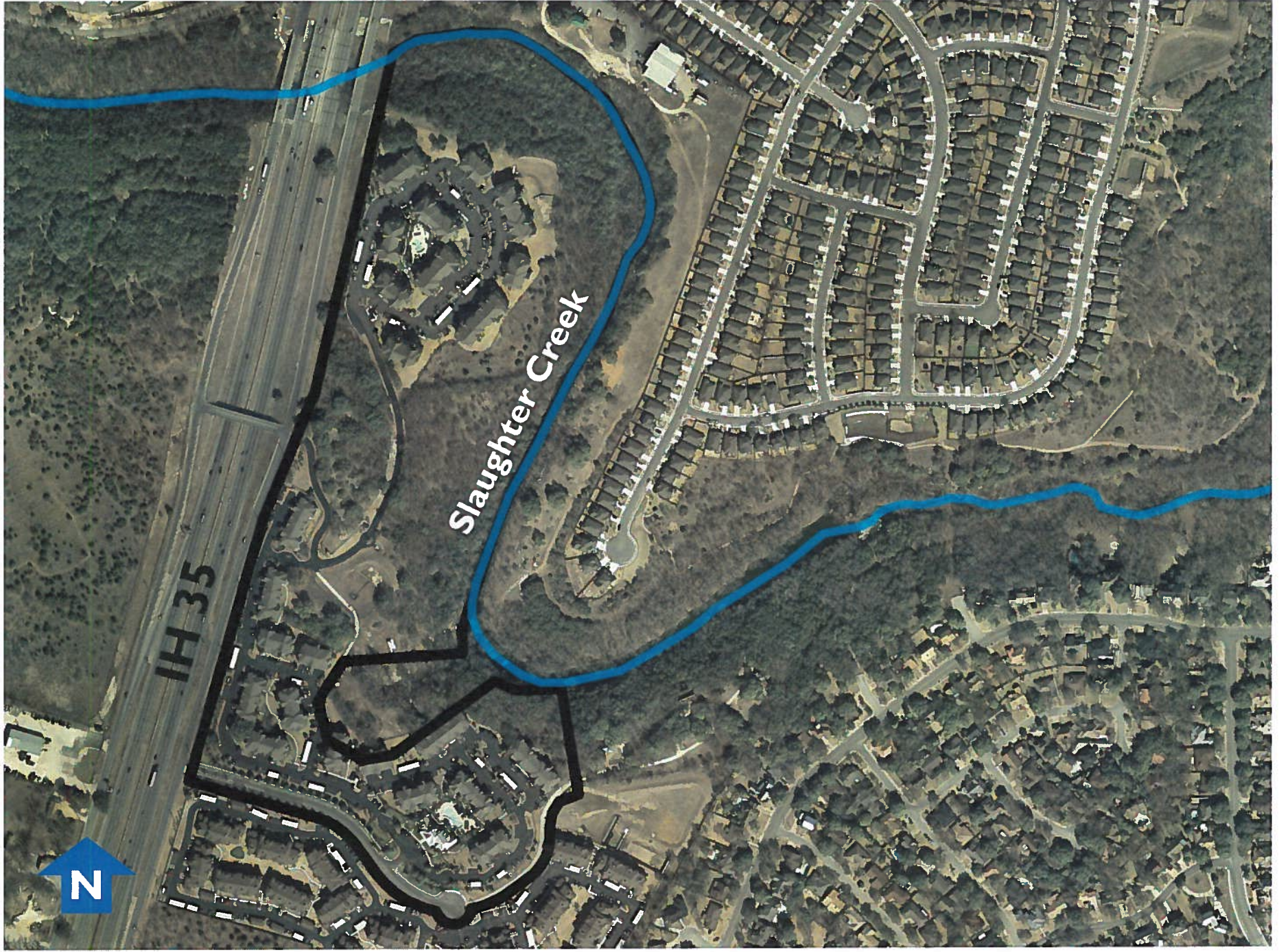
**Environmental Board Retreat
August 1, 2012**

Objective

Use an existing multifamily site to explain terms from the City's watershed regulations



Location of Example Site



Introduction

IH 35



Slaughter Creek

- Protect Sensitive Features
- Minimize Site Disturbance
- Manage Stormwater Runoff

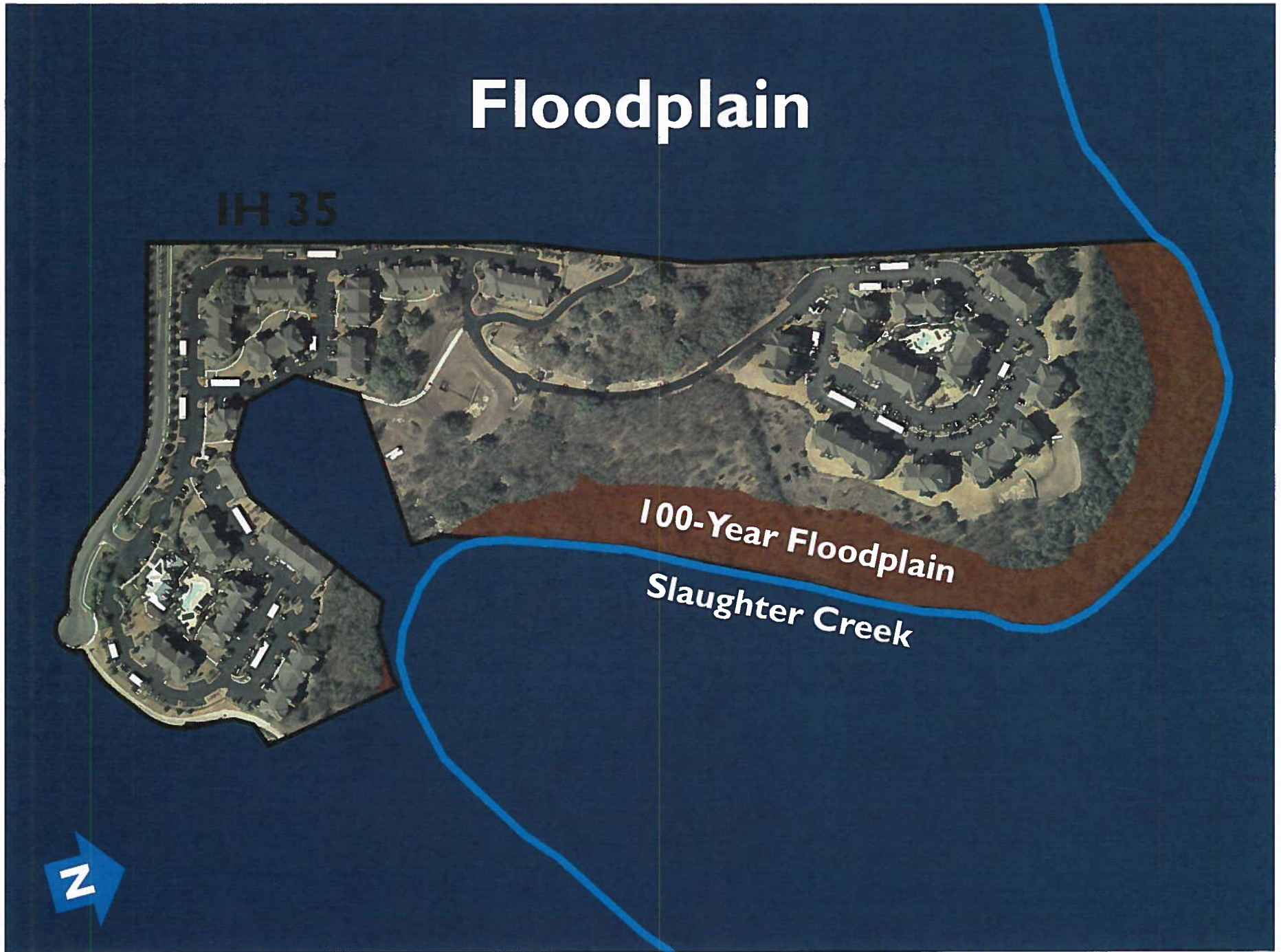
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Floodplain

IH 35

100-Year Floodplain
Slaughter Creek

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Floodplain

- The floodplain boundary helps determine the width of the creek buffers
- Floodplain modification must—among other things—preserve the natural and traditional character of the land and waterway
- City of Austin vs. FEMA Floodplain
 - The COA floodplain is modeled assuming full build-out of the contributing area (instead of using existing development conditions)

Creek Buffers



Creek Buffers

- Buffer width varies with floodplain, drainage area, and watershed classification
- Critical Water Quality Zone (CWQZ)
 - Development prohibited except for fences, limited park uses, utility crossings, detention ponds, floodplain modification, and certain road crossings
- Water Quality Transition Zone (WQTZ)
 - Limited impervious cover/density allowed outside of the floodplain based on watershed classification

Steep Slopes

IH 35

Slaughter Creek



Steep Slopes

- Steep slopes help determine the net site area
- For slopes greater than 15 percent:
 - Construction of parking areas is not allowed
 - Construction of roadways and driveways is only allowed for primary access in certain cases
 - Construction of a building or parking structure is limited by scope and requires restoration
- For slopes greater than 25 percent:
 - Construction of a building or parking structure is not allowed

Net Site Area



Net Site Area (NSA)
changes the denominator
for impervious cover

Net Site Area

APPENDIX Q-1

NET SITE AREA

Total gross site area = 56.29 Acres

Site Deductions:

Critical water quality zone (CWQZ) = 14.68 Acres

Water quality transition zone (WQTZ) = 21.07 Acres

Wastewater irrigation areas = 0 Acres

Deduction subtotal = 35.75 Acres

Upland area (Gross area minus total deductions) = 20.54 Acres

Net Site Area Calculation:

Area of Uplands with Slopes 0-15% 18.906 X100% = 18.91 Acres

Area of Uplands with Slopes 15-25% 1.373 X40% = 0.55 Acres

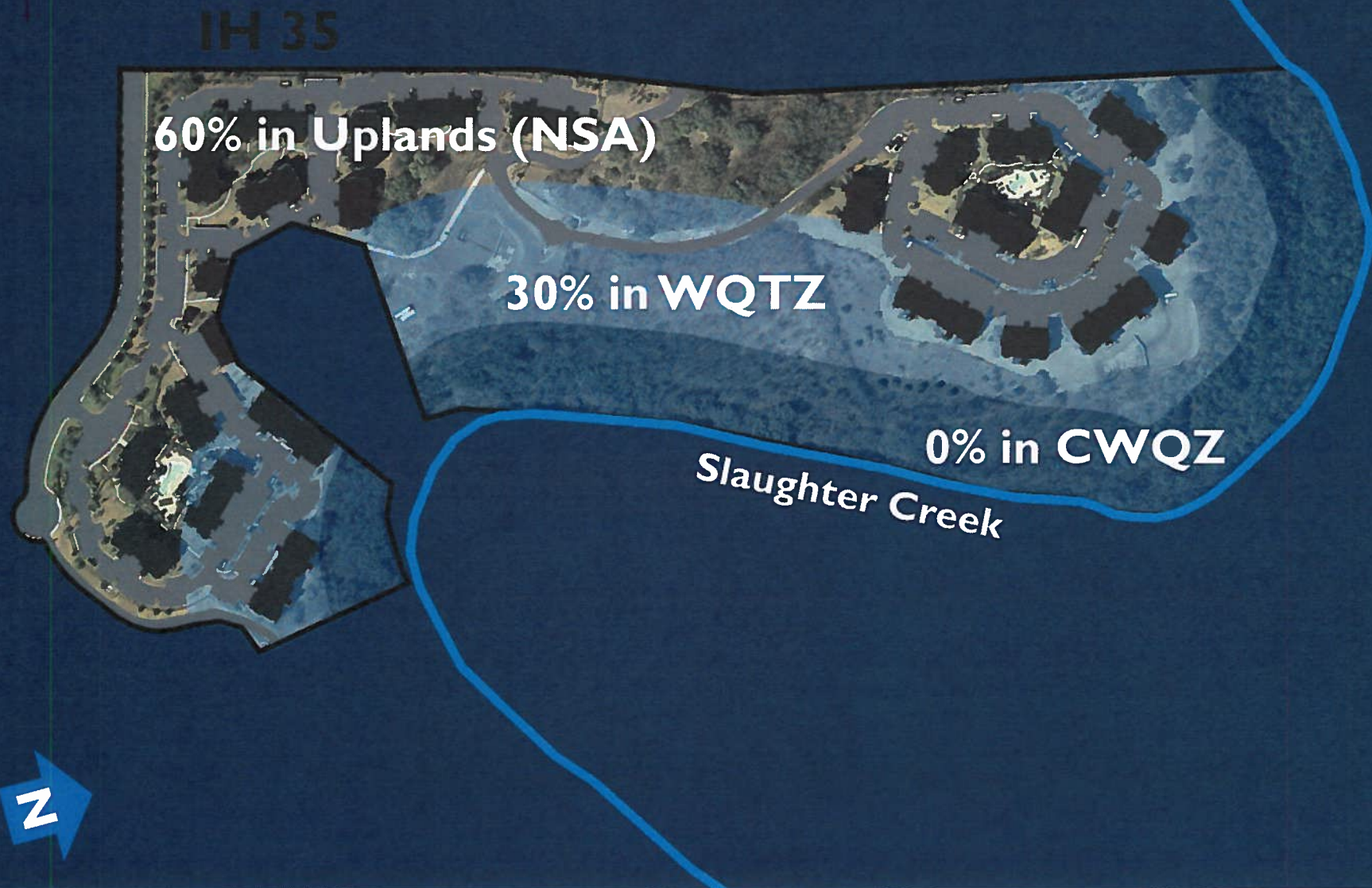
Area of Uplands with Slopes 25-35% 0.209 X20% = 0.04 Acres

Net Site Area (subtotal) = 19.50 Acres

Gross Site Area (GSA)
minus
Creek Buffers
Wastewater Irrigation

and
Portion of Steep Slopes
= Net Site Area (NSA)

Impervious Cover



Impervious Cover

- Impervious cover limits vary by land use and watershed classification
- Impervious cover calculations exclude certain features, such as sidewalks in public ROW, water quality controls, and pools
- Zoning also regulates impervious cover – the more restrictive limit governs

Watershed Protection Ordinance Impact Analysis

Evaluate effect of proposed ordinance on:

- Creek buffer geometry
- Developable area
- Allowable impervious cover

[still being completed – will distribute at meeting]

Critical Environmental Features



Critical Environmental Features

- CEFs include bluffs, canyon rimrocks, caves, sinkholes, springs, and wetlands
- Setbacks for CEFs range from 150 to 300 feet – construction is prohibited, but hiking trails and yards are allowed within 50 feet
- Wetland setbacks can be reduced or eliminated using appropriate mitigation



Wetland



Sinkhole



Spring



Rimrock

Tree Protection



Tree Protection

- Protected Trees
 - Trees over 19 inches in diameter require an administrative permit for removal
- Heritage Trees
 - Trees of certain species over 24 inches may not be removed without an administrative variance
 - Trees over 30 inches require a Commission variance
- Mitigation Required
 - Removal of trees over 8 inches (commercial) or 19 inches (single-family residential)
 - Not required for non-native, invasive trees

Cut and Fill Limits

IH 35

Slaughter Creek

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Cut and Fill Limits

- Cut and fill may not exceed 4 feet except for:
 - Within Urban Watersheds
 - Administrative variance of up to 8 feet in Suburban Watersheds
 - Administrative variance for stormwater ponds
 - Within roadway ROW
 - Construction of a building foundation
 - Utility construction or wastewater drainfield
 - Sanitary landfills and sand/gravel excavation in the extra-territorial jurisdiction (with limitations)

Erosion & Sedimentation Controls

IH 35

Limits of
Construction

Slaughter Creek

2



Erosion & Sedimentation Controls

- Also known as construction-phase controls
- Temporary controls are required for all development until permanent revegetation has been established
- Best management practices (BMPs) include:
 - Mulching, silt fencing, rock berms, sediment basins, inlet protection, & stabilized construction entrances



Silt Fence



Inlet Protection



Rock Berm



Mulching

Structural Stormwater Controls (a.k.a. “Ponds”)

IH 35



Note: This project participated in the
Regional Stormwater Management
Program (RSMP) in lieu of providing
on-site flood detention

2

Structural Stormwater Controls

- Water Quality Control
 - Capture a required volume (1/2" plus) for the site and treat to a sedimentation/filtration standard
 - Non-degradation for the Barton Springs Zone
- Flood Mitigation
 - Match peak flow rates to predevelopment for the 2, 10, 25, and 100-year storms
- Erosion Control
 - On-site control of the 2-year storm
 - Note: WQ ponds also help with erosion control



Sedimentation/Sand Filtration



Wet Pond



Flood Detention



Vegetative Filter Strip



Rain Garden



Biofiltration



Retention-Irrigation



Rainwater Harvesting

Common Acronym Guide

BMP = Best Management Practice

BSZ = Barton Springs Zone

CCN = Certificate of Convenience & Necessity

CEF = Critical Environmental Feature

COA = City of Austin

CRZ = Critical Root Zone

CWO = Comprehensive Watershed Ordinance

CWQZ = Critical Water Quality Zone

DCM = Drainage Criteria Manual

DDZ = Desired Development Zone

DWPZ = Drinking Water Protection Zone

E&S = Erosion and Sedimentation

EA = Environmental Assessment

EARZ = Edwards Aquifer Recharge Zone

ECM = Environmental Criteria Manual

EHZ = Erosion Hazard Zone

EII = Environmental Integrity Index

ERM = Environmental Resource Management

ETJ = Extra-Territorial Jurisdiction

FP = Floodplain

GSA = Gross Site Area

IC = Impervious Cover

LDC = Land Development Code

LOC = Limits of Construction

LUR = Land Use Review

NSA = Net Site Area

PAP = Pollutant Attenuation Plan

PC = Planning Commission

PDRD = Planning and Development Review

PUD = Planned Unit Development

ROW = Right-of-Way

RSMP = Regional Stormwater Management Program

SER = Service Extension Request

SOS = Save Our Springs Ordinance

TIF = Tax Increment Financing

VFS = Vegetative Filter Strip

WPD = Watershed Protection Department

WQ = Water Quality

WQTZ = Water Quality Transition Zone

ZAP = Zoning and Platting Commission