



Avondale

BUCKEYE, AZ



**City Council Meeting
May 23, 2016
Development Services Department**

El Rio Design Guidelines and Planning Standards

A Guide for Land Management and Implementation of the El Rio Watercourse Master Plan



Avondale

BUCKEYE, AZ



Project Schedule

- December 2013 – IGA Executed
- October 2014 – Consultant Hired
- November 2014 – Project Initiated
- June 2015 – IGA Extended
- September 2015 - Draft Document
- October 2015 – Open House at Estrella Mountain Regional Park
- December 2015 – Final Document
- February 2016 – Accepted by Administrative Committee
- April 2016 – Steering Committee Recommends Adoption
- May 2016 – Adoption by Governing Bodies



Avondale

BUCKEYE, AZ



El Rio Design Guidelines and Planning Standards

Chapter 1 – Background

Chapter 2 – Character and Vision

Chapter 3 – Land Development Guidelines

**Chapter 4 – Open Spaces, Paths, Trails and
Edge Treatments**

Chapter 5 – Landscape Guidelines

Chapter 6 – Signage Guidelines

Chapter 7 – Economic Development

Chapter 8 – Pilot Projects

Chapter 1 – Background



Avondale

BUCKEYE, AZ



Gila River Watershed

- Gila River Watershed at Study Limits drains 46,000 Square Miles
- El Rio Study Area – 17.5 mi. from confluence with Agua Fria River to SR85
- Six miles in Goodyear



Source: K.Musser <http://www.eoearth.org/view/article/176074/brng>

Study Area



Avondale

BUCKEYE, AZ



El Rio Corridor Study Area = 53 Sq. Mi.

- FEMA Flood Risk Zone

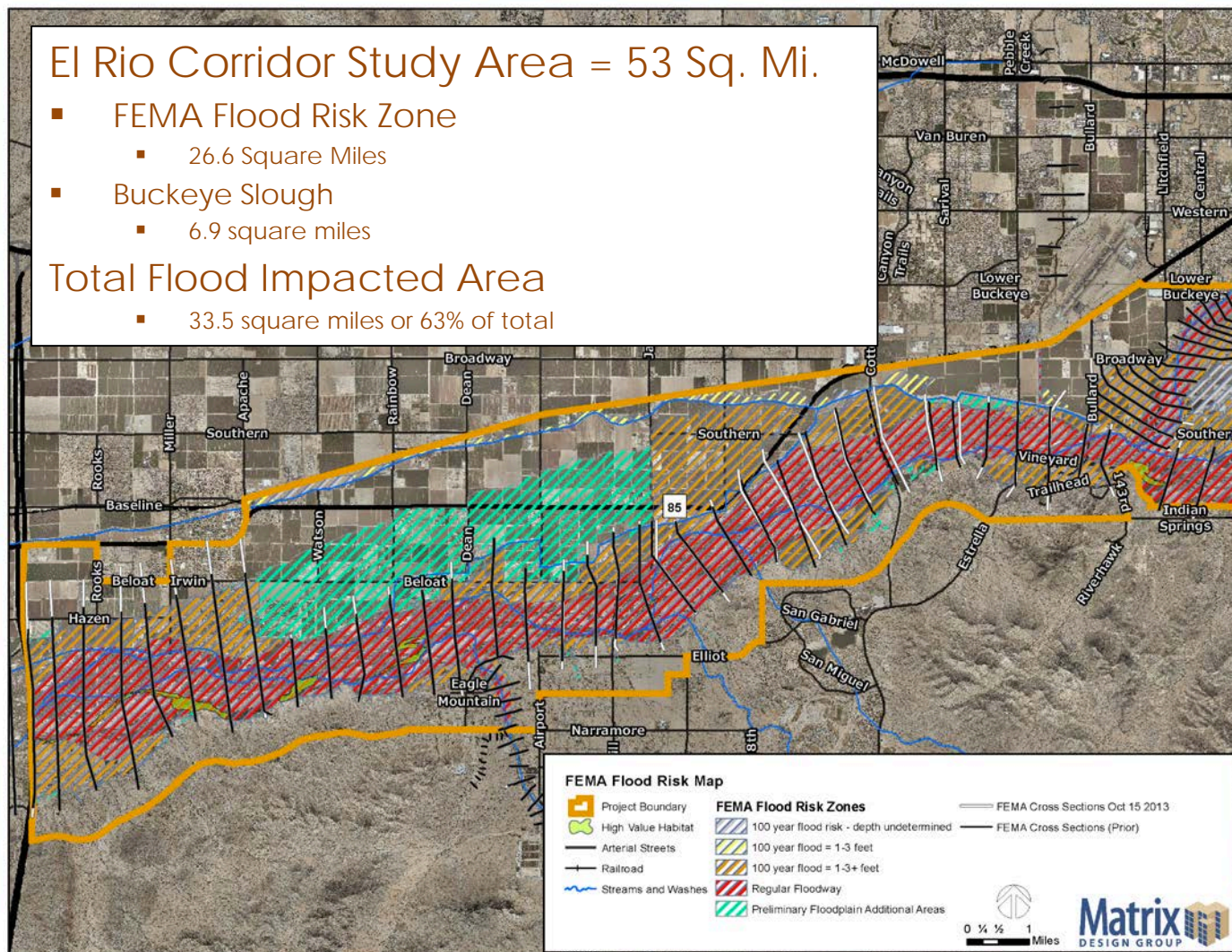
- 26.6 Square Miles

- Buckeye Slough

- 6.9 square miles

Total Flood Impacted Area

- 33.5 square miles or 63% of total





Avondale

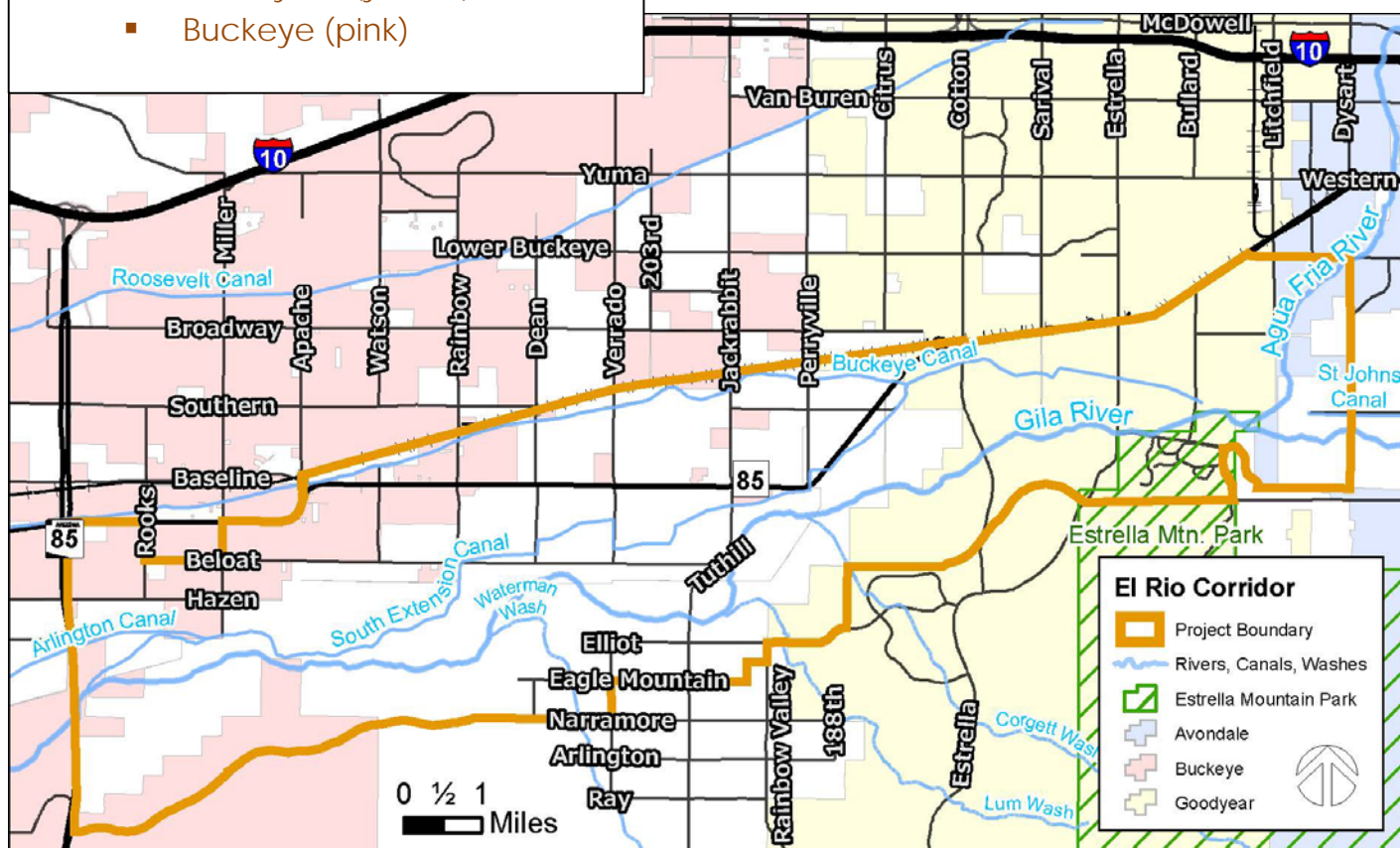
BUCKEYE, AZ



Jurisdictional Boundaries

Encompasses 4 Jurisdictions

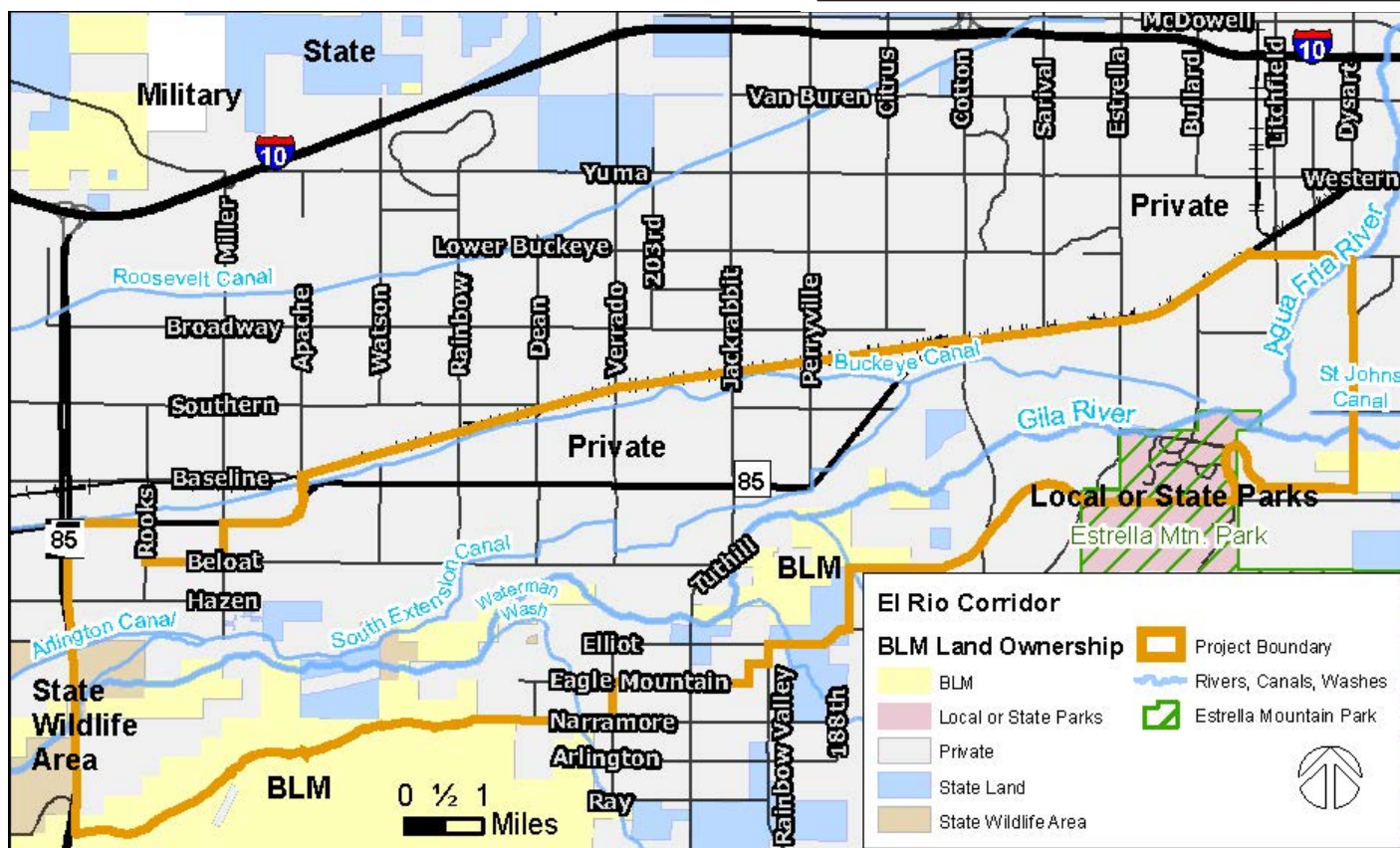
- Maricopa County (white)
- Avondale (blue)
- Goodyear (yellow)
- Buckeye (pink)



Chapter 1 – Background

Land Ownership

Ownership Type	Acreage
Private	26,866
Bureau of Land Management	4,046
Arizona State Land	1,338
Local or State Parks	996
State Wildlife Area	641
Total	33,886





Chapter 1 – Background

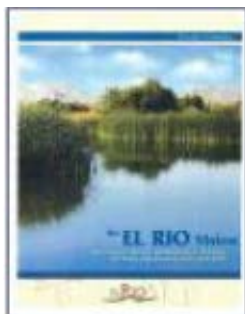
Previous Studies

1987 – 97-Mile Water Course Master Plan

1999 - El Rio Water Course Master Plan Vision

2001 – Archeological Investigation of El Rio Corridor

2006 - El Rio Water Course Master Plan

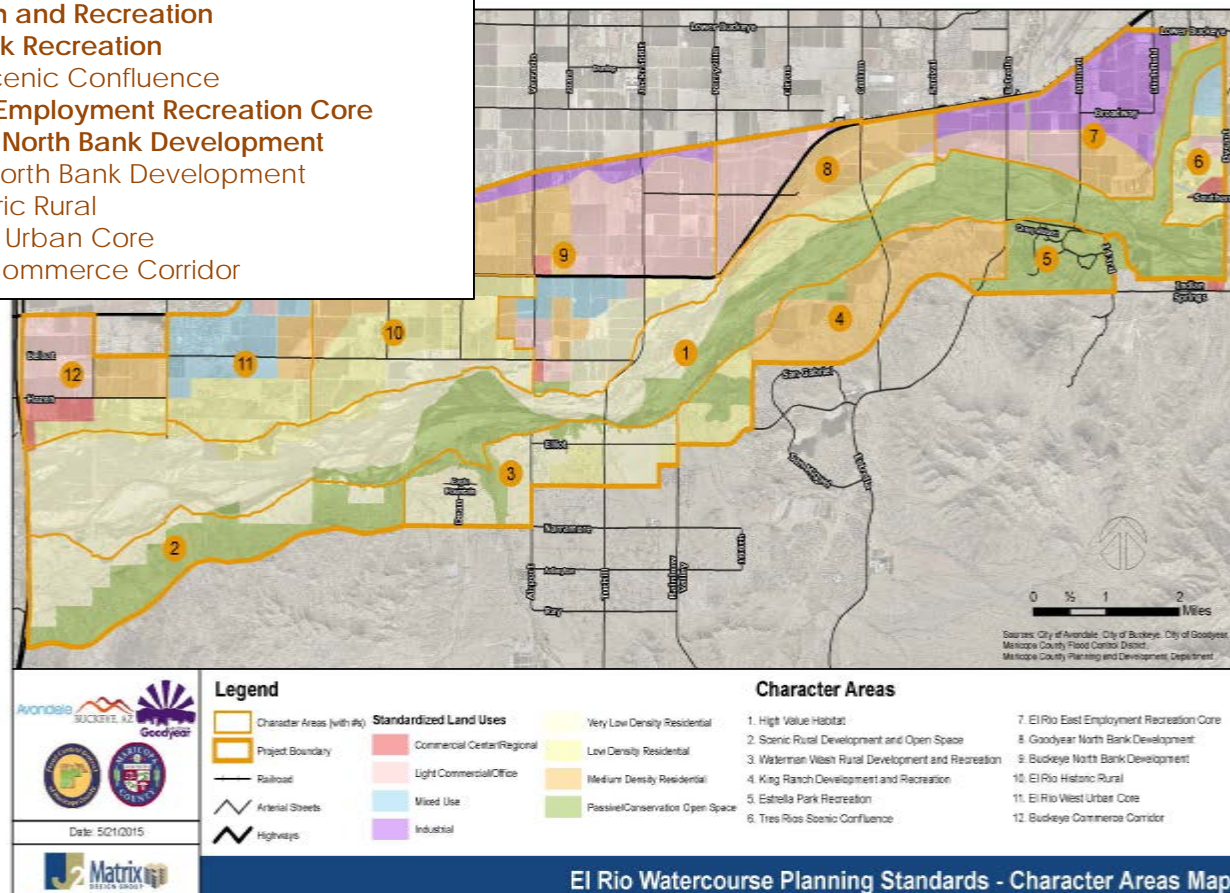


1. Develop structural and non-structural alternatives to minimize potential flooding
2. Manage environmental restoration of habitat by removal of salt cedar trees and reintroduction of native species
3. Enhance water quality through wetlands and open flow channels
4. Integrate multi-use recreational facilities and trails along the Gila River
5. Provide educational opportunities through interpretive hiking trails and riparian education centers
6. Highlight this economic asset that could become a regional and national destination

Character Areas

12 Character Areas – 5 in Goodyear

1. High Value Habitat
2. Scenic Rural and Open Space
3. Waterman Wash Rural and Recreation
4. King Ranch and Recreation
5. Estrella Park Recreation
6. Tres Rios Scenic Confluence
7. El Rio East Employment Recreation Core
8. Goodyear North Bank Development
9. Buckeye North Bank Development
10. El Rio Historic Rural
11. El Rio West Urban Core
12. Buckeye Commerce Corridor



Future Land Use

Future Land Use	Percent of Total
Very Low Density Residential	24%
Low Density Residential	25%
Medium Density Residential	14%
Multi-Family	2%
Light Commercial/Office	7%
Commercial Center/Regional	2%
Industrial	2%
Mixed Use	4%
Open Space	11%
Roads	9%





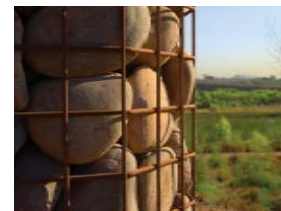
Chapter 2 – Character and Vision

El Rio Themes

Use Recycled Materials



Use Local Materials



Create Connections



Encourage Yr./Round Use



Create Discovery Zones



Make Accessible



Historical Interpretation



Build on Brand



Respect the Setting





Avondale

BUCKEYE, AZ



Chapter 3 – Land Develop't Guidelines

Development Objectives

1. Minimize impacts of flooding on human health and safety.
2. Encourage development in locations with little risk of flooding.
3. Allow development throughout the corridor at a scale appropriate to the risk of flooding and mitigation measures.
4. Recognize the potential for changes in flood risk resulting from future, funded local and regional flood improvements.

Transects

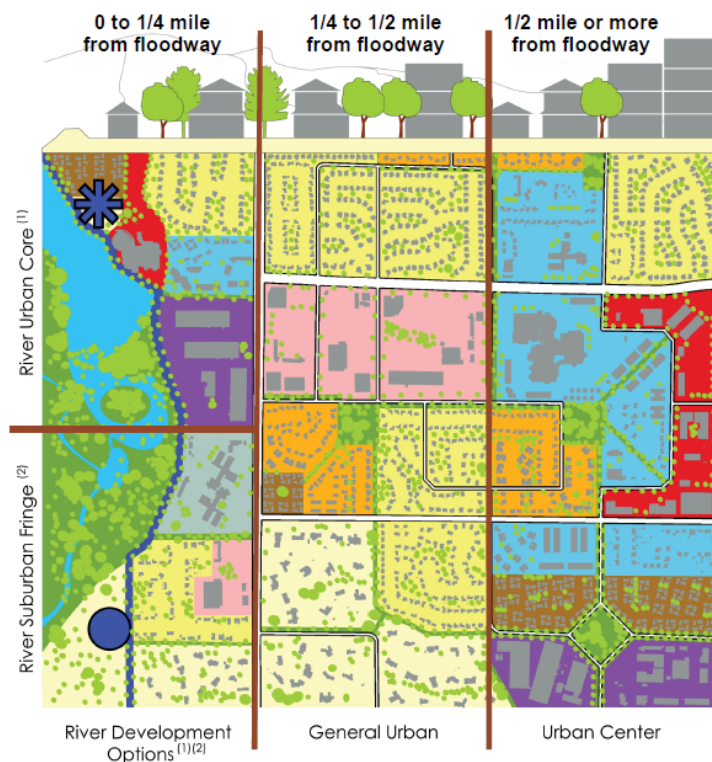


Avondale

BUCKEYE, AZ

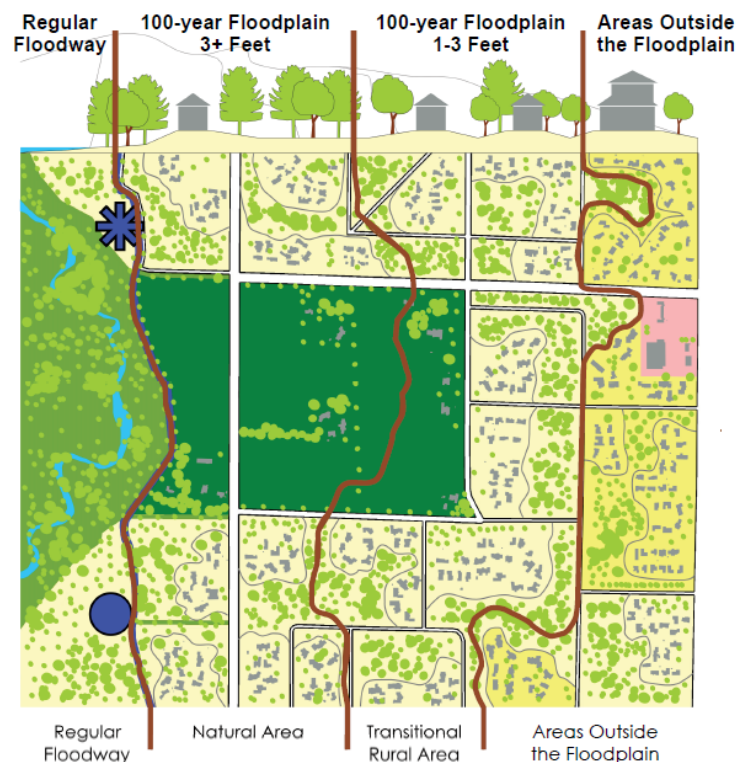


Viewshed Transect



Viewshed

Flood Risk Transect



Flood Risk*



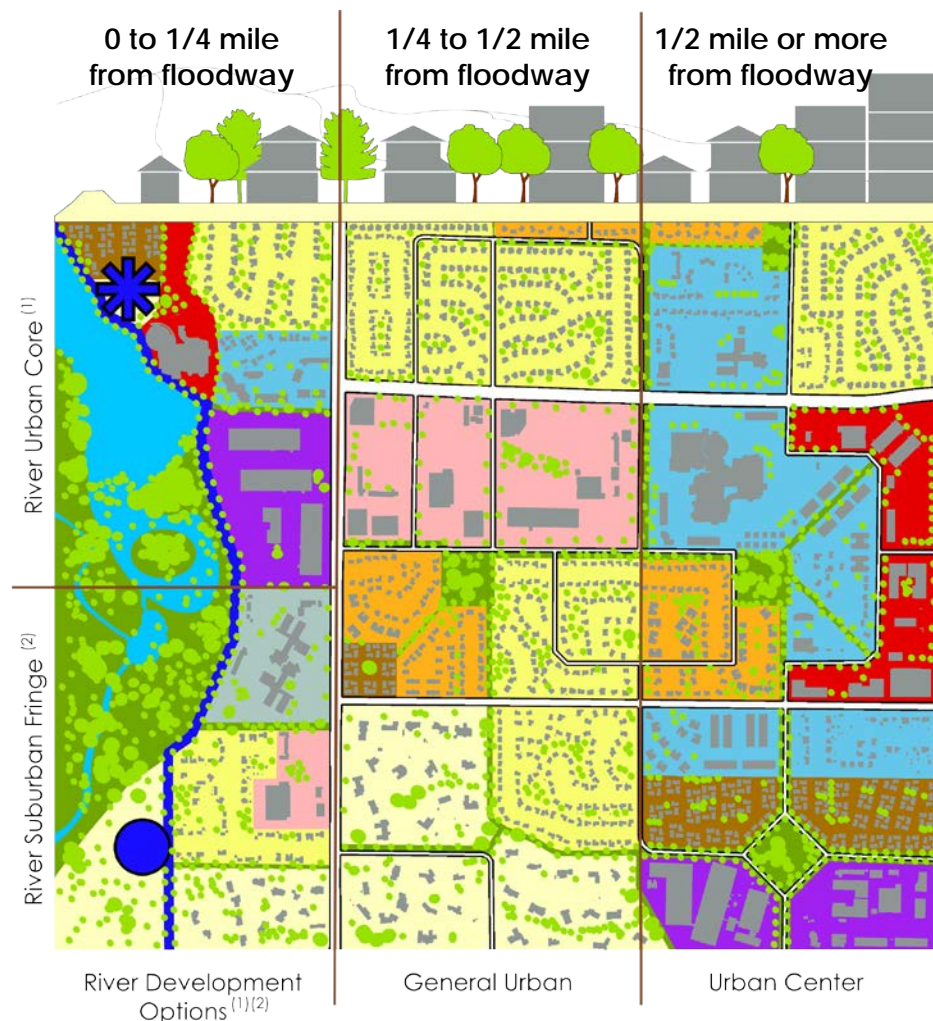
Avondale

BUCKEYE, AZ



Viewshed Transect

- Applies to property outside the floodplain.
- Intent to preserve and enhance view corridors approaching the river by stepping down building heights adjacent to arterial road corridors and as you progress toward the river.
- More dense and intense development adjacent to the floodway may be considered with a detailed plan for development.





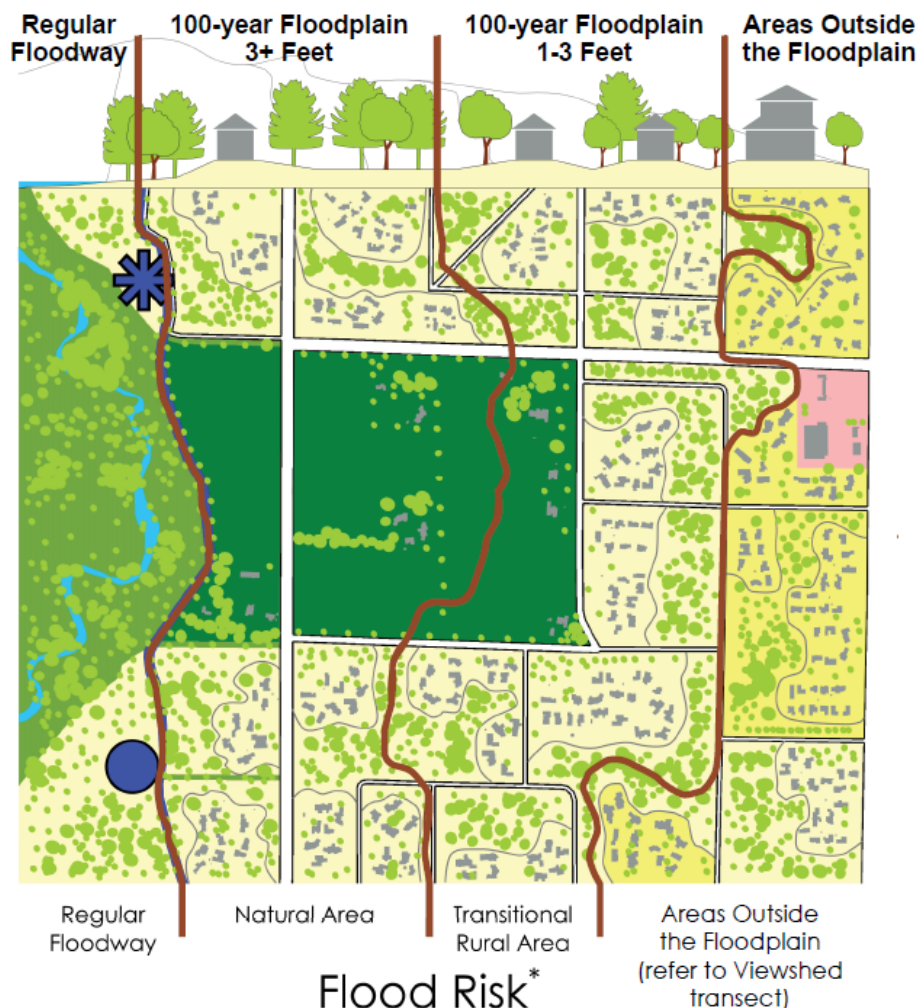
Avondale

BUCKEYE, AZ



Flood Risk Transect

- Identifies appropriate type and scale of development for properties at risk of flooding.
- Mitigation measures to ensure minimal risk to life and property.
- Long-term maintenance of improvements must be provided.
- All properties must identify and provide a means for safe egress in the event of flooding.

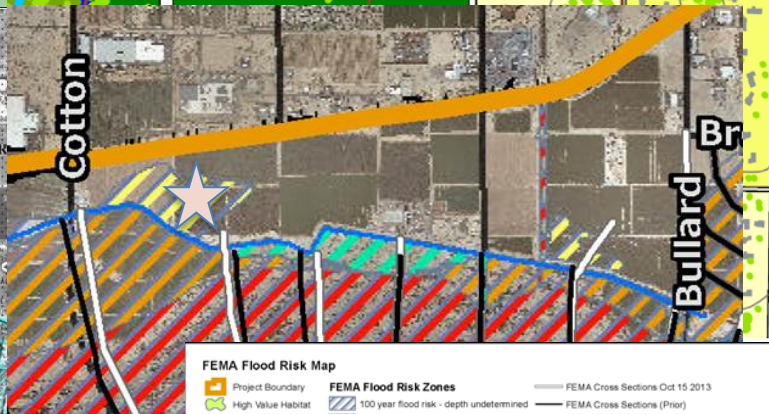
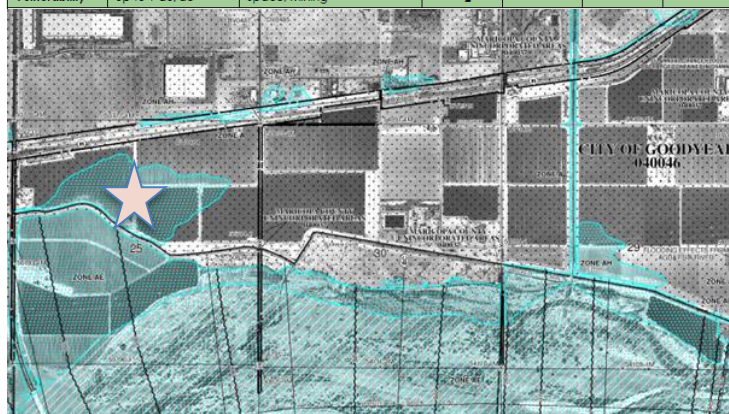


Example

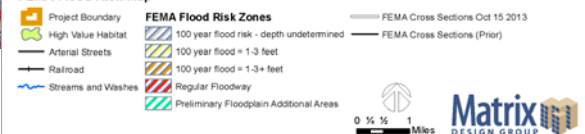
Regular Floodway 100-year Floodplain 3'+ depth 100-year Floodplain 1'-3' depth Outside the Floodplain

Table 3-1 El Rio Corridor Land Use

Vulnerability	Use Type Descriptions		Permitted Development			Viewshed
	Residential Uses	Non-Residential Uses	Regular Floodway	Natural Area	Transitional Rural Area	
Highly Vulnerable	Residential densities in excess of 4.01 du/ac	All Buildings for Retail and Service Uses, such as, but not limited to, Lodging, Meeting Hall, Hospital, Religious Institution, School, Group Living, Day Care, Restaurants, Indoor Entertainment.	X	X	P ₂	P
More Vulnerable	Residential densities from 2.01 to 4.0 du/ac	All Buildings for Industrial, Retail and Service Uses in excess of 20,000 square feet.	X	P ₂	P ₁	P
Vulnerable	Residential from 0 to 2 du/ac	All Buildings for Industrial, Retail and Service Uses in excess of 10,000 square feet and Outdoor Entertainment.	X	P ₁	P	P
Low Vulnerability	Residential densities up to 1 du/ac	Agricultural, Parks and Open Space, Mining	P ₂	P	P	P



FEMA Flood Risk Map





Chapter 4 – Open Spaces, Paths, Trails and Edge Treatments



Avondale

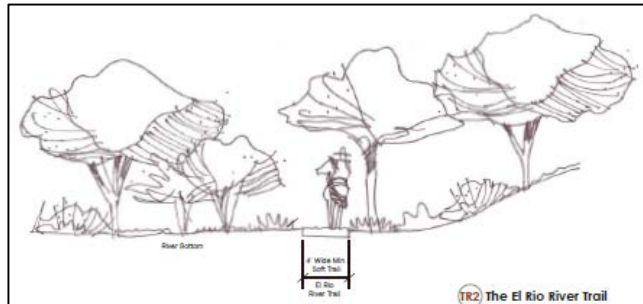
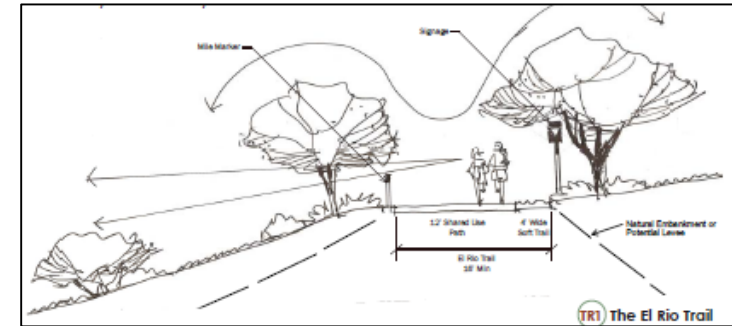
BUCKEYE, AZ



Trail Standards

El Rio Trail Along River's Edge

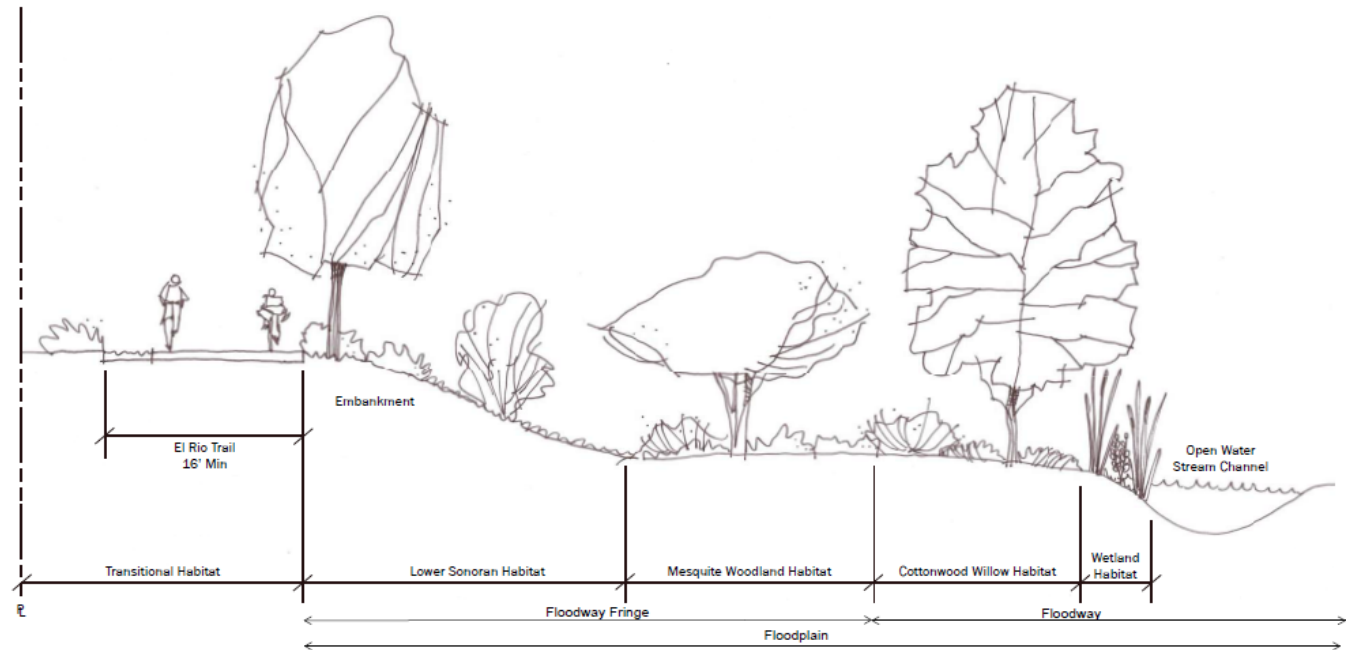
El Rio River Trail In River Bottom





Landscape Palettes

- Transitional Habitat
 - Lower Sonoran Habitat
 - Mesquite Woodland Habitat
 - Cottonwood Willow Habitat
 - Wetland Habitat

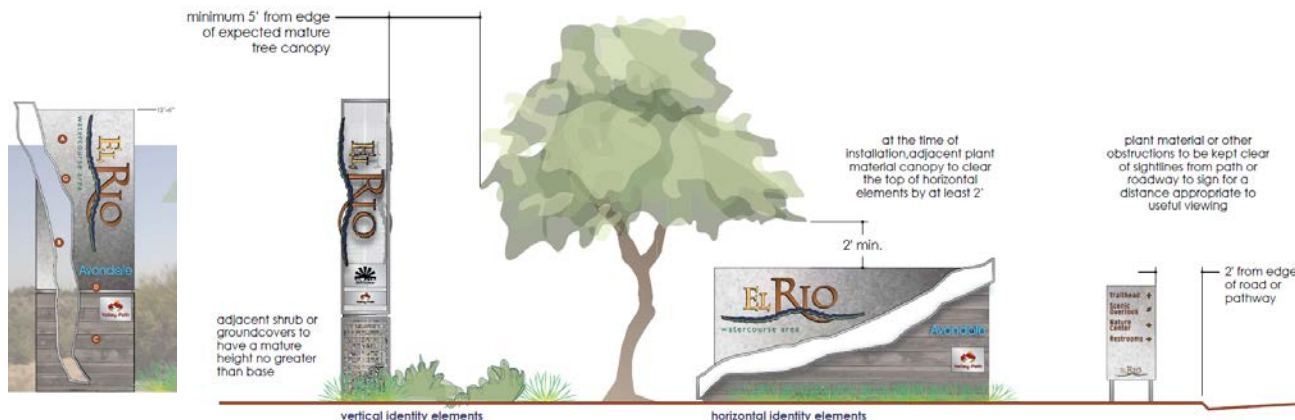


P2 Typical Habitat Section

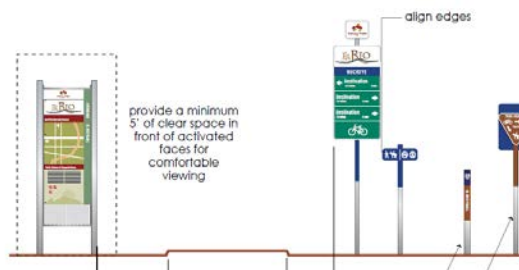
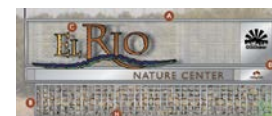


Avondale

BUCKEYE, AZ



- Materials and Color Palette
- Navigation Elements
- Regulatory Elements
- Orientation Elements
- Identity Elements
- Educational Elements





Avondale



Goodyear:

- Passive Recreation Opportunities
- Connection to Regional Trails
 - Sun Circle
 - Maricopa Trail (Bullard Wash)
- Commercial Nodes at Bridges

Recommendations:

- Identify Unique Recreational Districts
- Wide Range of Recreational Opportunities
- Activate Trails and Parks
- Engage Children and Families
- Form Partnerships with Stakeholders
- Market the El Rio Corridor



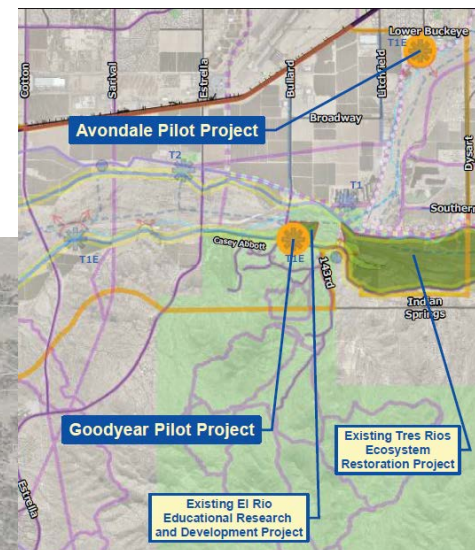
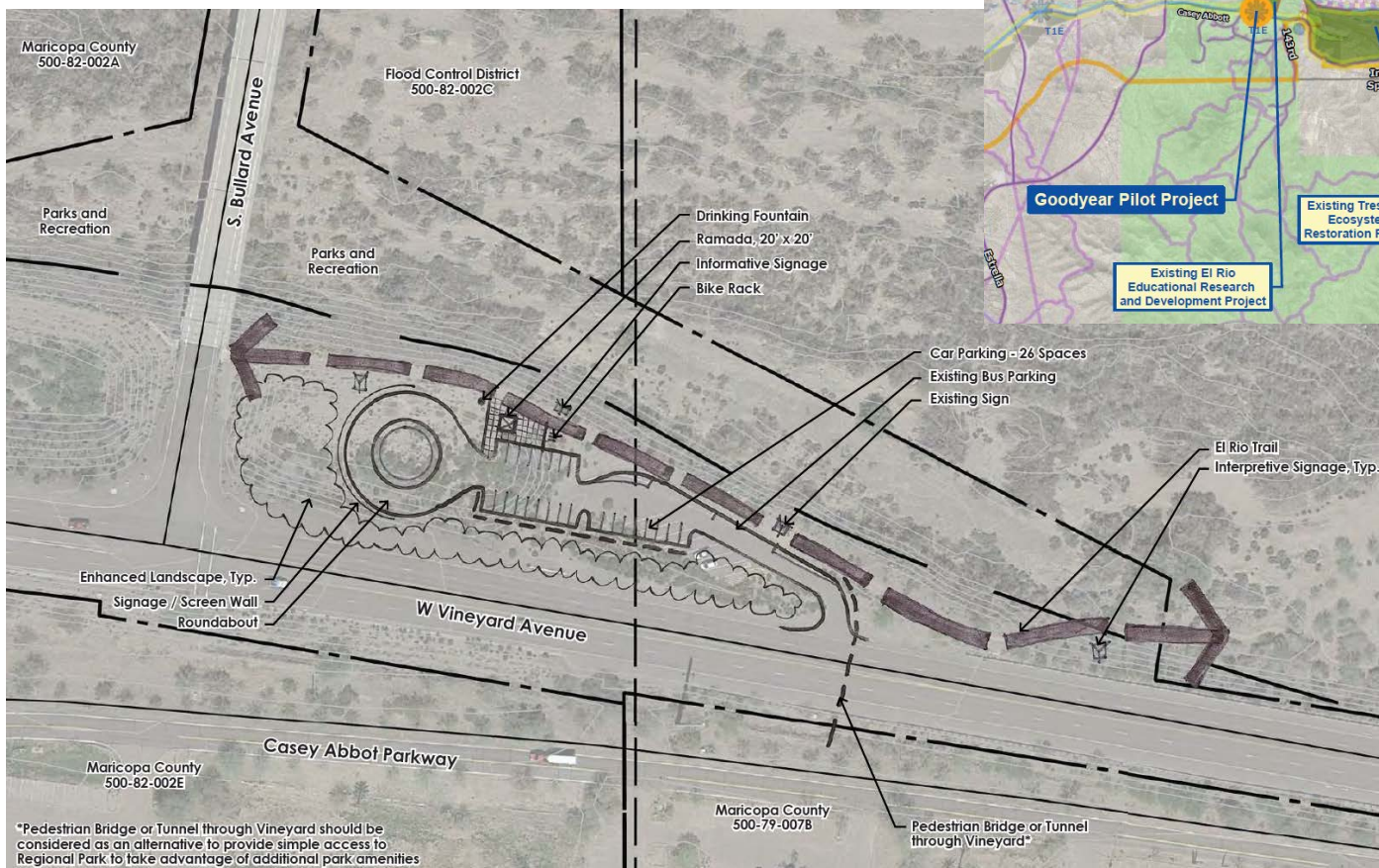
Avondale

BUCKEYE, AZ



Goodyear Pilot Project – Rio Vista Trailhead

- Level 1 Trailhead in Parks Master Plan
- Entry point to El Rio and Maricopa Trails
- Enhanced parking and picnic ramada





Avondale

BUCKEYE, AZ



Design Guidelines and Planning Standards

Recommendation for Adoption:

El Rio Technical Committee – December 18, 2015

El Rio Administrative Committee - February 25, 2016

El Rio Steering Committee – April 12, 2016

Goodyear Planning and Zoning Commission – April 20, 2016

Staff Recommendation:

Adopt Resolution No. 16-1761 adopting the El Rio Design Guidelines and Planning Standards

Honor Award in Category of Analysis and Planning:

AZ Chapter American Society of Landscape Architects – April 16, 2016

Recognition of outstanding professional achievement by J2 Engineering and Environmental Design and Project Sponsors: Cities of Avondale, Buckeye, Goodyear, Maricopa County (Planning & Development) and the Flood Control District of Maricopa County.



El Rio Design Guidelines and Planning Standards



Avondale

BUCKEYE, AZ



Questions?

El Rio Design Guidelines and Planning Standards
A Guide for Land Management and Implementation of the El Rio Watercourse Master Plan

