

### LEGEND

- Study Area
- Municipal Limits
- Planning Boundary
- Parcel
- Streets
- Future Arterial Roadways
- SR 30 Alignment

- Canals
- Existing 100-Year Floodway
- Existing 100-Year Floodplain
- Goodyear Airport Birdstrike Zone
- BWCDD Diversion Structure
- BWCDD Canal Gate
- BWCDD Lake

- Trails**
- Trails
- Estrella Park Trail
- Proposed Trail System**
- Powerline Corridor
- Maricopa Trail
- Proposed Sun Circle Trail
- Proposed Maricopa Trail

- Goodyear Land Use**
- Scenic Neighborhood
- Neighborhood
- Open Space
- Industrial
- Agriculture
- Business & Commerce

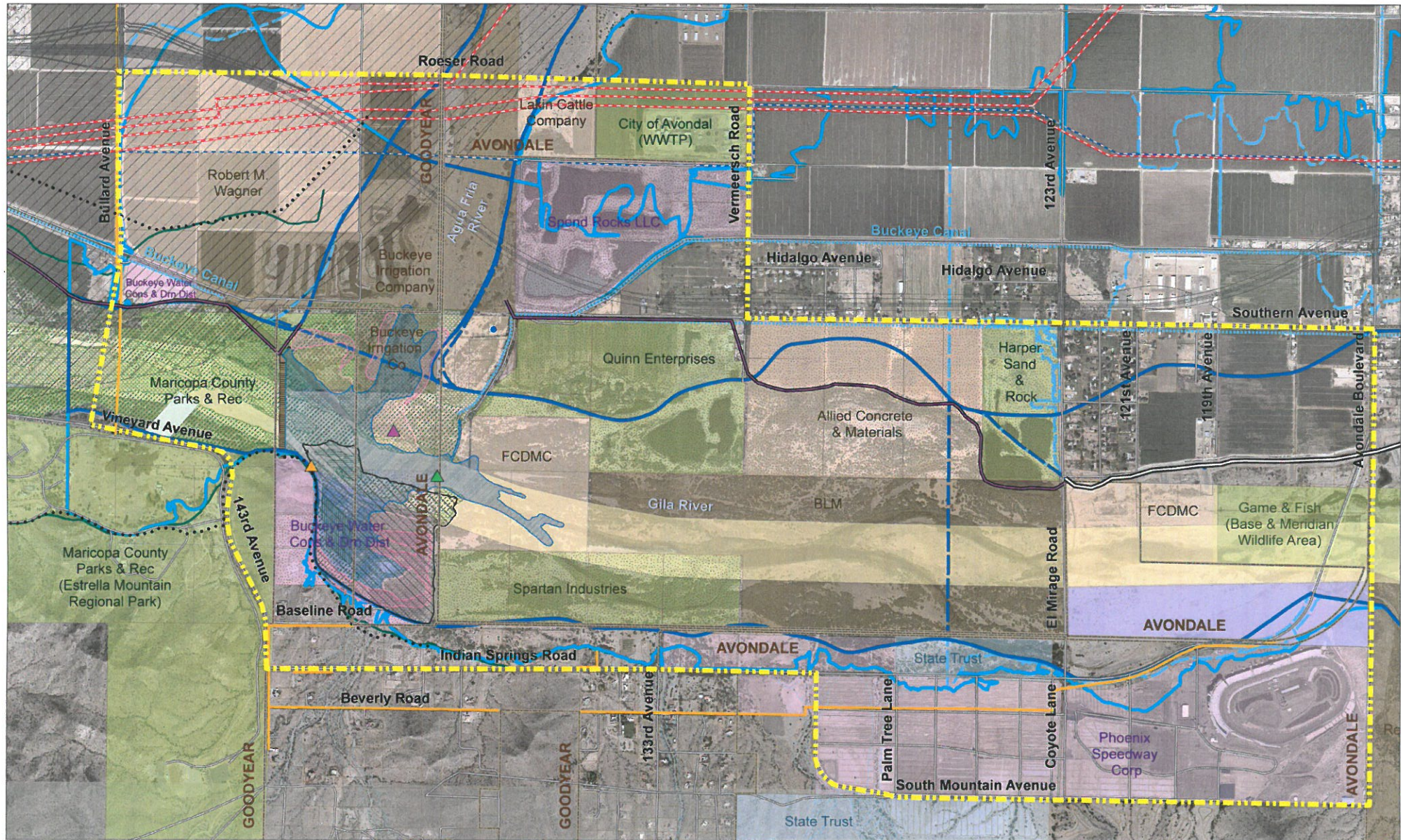
- Avondale Land Use**
- Rural Low Density Residential
- Estate/Low Density Residential
- Medium Density Residential
- Medium/High Density Residential
- High Density Residential
- Urban Residential
- Local Commercial
- Freeway Commercial
- Urban Commercial
- Old Town District
- Sports and Entertainment
- Office/Professional
- Industrial
- High Intensity Office

- Mixed Use
- Corporate Park
- Gila River Scenic District
- Open Space and Parks
- Public/Civic

0 500 1,000 2,000 Feet







### LEGEND





## El Rio Lake SUITABILITY ANALYSIS SINGLE LAKE



### Single Lake Scenario Description

The single lake scenario focuses all program elements around one body of water. Under this concept, the existing diversion structure would be relocated to the west to improve accessibility to the lake from adjacent developable land uses located outside of the floodway limits. The lake would allow partial body contact, fishing, and non-motorized boating.

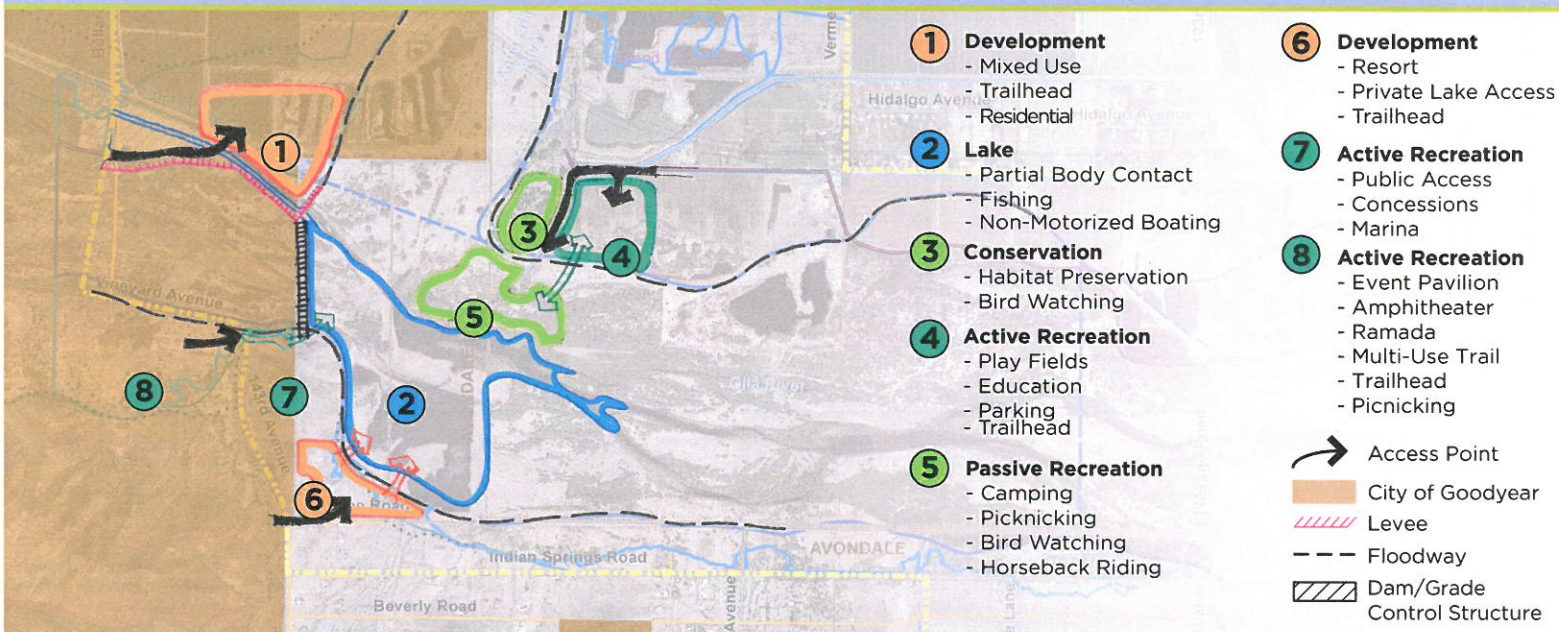
Surrounding land uses would include an active recreation area that connects to Estrella Mountain Regional Park, a resort development area located along the southern edge of the lake, a mixed use development area located along the northern edge of the new diversion structure, a passive recreation area within the floodway located along the northeastern edge of the lake, and active recreation and conservation areas located north of the lake limits outside of the existing floodway.

### Agency Considerations

- Prefer a balance between active and passive recreation opportunities (more urban fishing, camping and wildlife viewing opportunities), wants to maintain the existing wildlife habitat and natural features of the river
- Interested in the potential for economic development (hotel/commercial) in the surrounding area
- Proposed lake location(s) should avoid the bird strike zone for the airport
- Lake area is not within the City of Goodyear, Goodyear has no plans (and most likely no authority) to annex the area. The city's primary focus is to work with Maricopa County to better utilize Estrella Mountain Park



### Single Lake Scenario - Design Concept



### Opportunities

- Proposed dam is located within the Goodyear Planning Area
- Estrella Mountain Regional Park would provide controlled access to the lake
- Single lake allows all users from any entry point full access to all proposed project amenities.
- Single lake would be easier to design and potentially have lower development costs
- Operation and maintenance of single lake could be consolidated and facilitated by one entity
- No lake features would be located within the defined bird strike zone

### Constraints

- Partial body contact (as proposed) would restrict development of additional revenue generating full body contact activities, Temporary treatment to allow full body contact must maintain water quality for existing agriculture users
- Majority of land located adjacent to lake is within the floodway, which places regulatory limits on program/placement of permanent recreational uses next to the lake edge
- Single lake would impound largest amount of water, require greater commitment from existing/future water sources
- Majority of lake is located on FCDMC and BWCDD property requiring some type of joint-use O&M agreement

### Additional Considerations

- Considerable excavation within the floodway would need to occur to establish/maintain the desired single lake footprint
- Additional analysis would need to be completed to confirm long term water availability
- Placement of permanent structures within the floodway would be limited
- Development of concept elements may impact existing high quality habitat (e.g. beaver dam, yuma clapper rail breeding location, heron rookery)
- Impacts of federal and State permitting requirements will need to be assessed



## El Rio Lake SUITABILITY ANALYSIS MULTI-LAKE

### Multi-Lake Scenario Description

The multi-lake scenario is comprised of three separate lakes that each provide unique recreational activities. Under this concept, the existing diversion structure would be relocated to the west to improve accessibility to the main central lake from adjacent developable land. The central lake would allow partial body contact. The southern lake would predominantly be fed by groundwater and allow full body contact. The northern lake would also allow full body contact, but would be developed outside of the floodway to enable the development of more active related water sports, such as cable water skiing.

Land uses outside of the floodway include an active recreation area that connects to Estrella Mountain Regional Park, an RV resort area, an action sports resort area, an active recreation area and a conservation area. Within the floodway, uses would be limited to passive recreation areas.

### Agency Considerations

- Prefer a balance between active and passive recreation opportunities (more urban fishing, camping and wildlife viewing opportunities), want to maintain the existing wildlife habitat and natural features of the river
- Proposed lake location(s) should avoid the bird strike zone for the airport
- Interested in the potential for economic development (hotel/commercial) in the surrounding area
- Lake area is not within the City of Goodyear, Goodyear has no plans (and most likely no authority) to annex the area. The city's primary focus is to work with Maricopa County to better utilize Estrella Mountain Park.



### Multi-Lake Scenario - Design Concept



### Opportunities

- Multi-lake concept would allow each lake to provide independent uses to match stakeholder needs, (i.e. a full body contact lake vs. a partial body contact lake)
- Development, operation and maintenance of each lake could be facilitated by individual entities, which could reduce need for consensus amongst all stakeholders
- Multi-lake concept would impound less water and thus require a smaller commitment from existing water sources.
- Lake development could be phased over time
- Proposed dam and portion of Central Lake is located within Goodyear Planning Area.
- North lake would be located in Goodyear and outside of floodway, which would allow more development flexibility

### Constraints

- North Lake is located within the fringe of the bird strike zone for the Goodyear airport
- Multi-lake concept would introduce more engineering variables making development potentially more challenging
- Independent operation and maintenance of each lake could create challenges due to conflicting long term visions (i.e. preservation/restoration vs. recreation/revenue generation).

### Additional Considerations

- Some excavation within the floodway would need to occur to establish/maintain the desired lake footprints
- Additional analysis would need to be completed to confirm long term water availability
- Placement of permanent structures within the floodway would be limited
- Development of concept elements may impact existing high quality habitat (e.g. beaver dam, yuma clapper rail breeding location, heron rookery)
- Impacts of federal and State permitting requirements will need to be assessed