



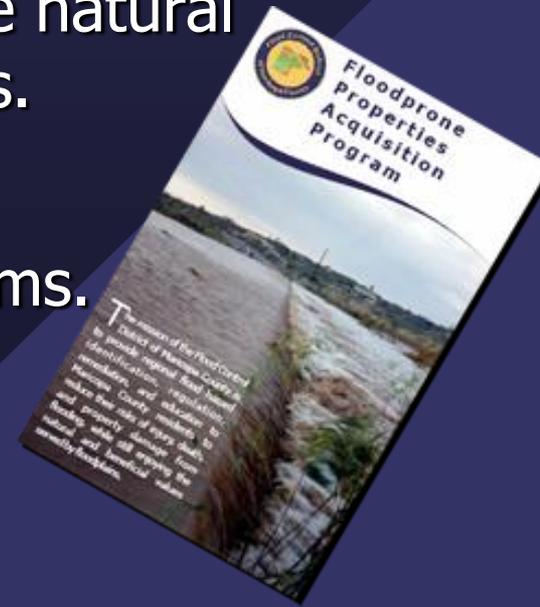
Wittmann Area Drainage Master Plan McMicken Dam Project Public Meeting

Kelli A. Sertich, AICP, CFM
Regional Area Planning Manager

Flood Control District of Maricopa County

The mission of the Flood Control District of Maricopa County (District) is to provide flood hazard identification, regulation, remediation, and education to the people in Maricopa County so that they can reduce their risks of injury, death, and property damage due to flooding while enjoying the natural and beneficial values served by floodplains.

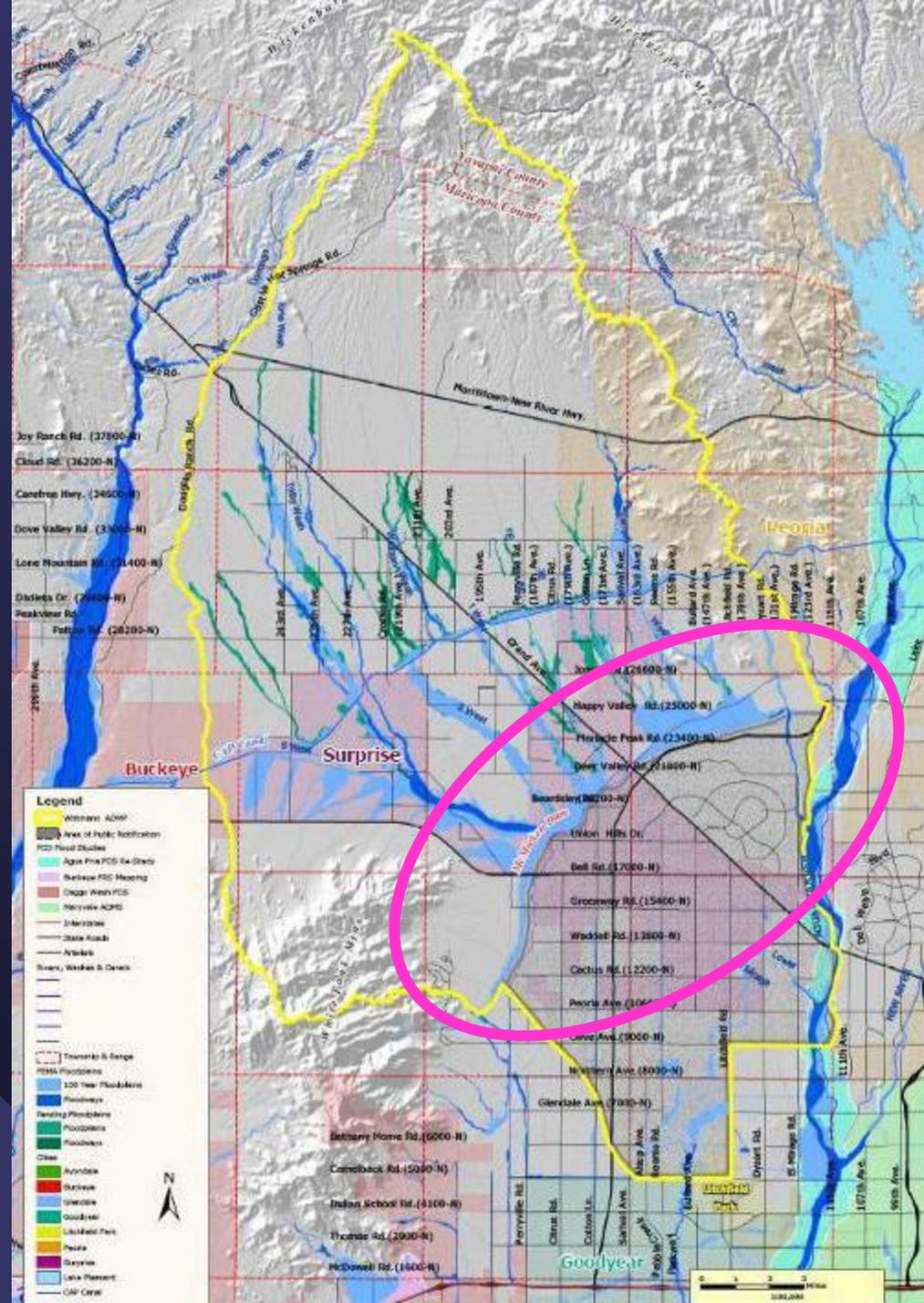
This is achieved through a variety of flood management studies, projects and programs.



Wittmann Area Drainage Master Plan Study Boundary

380 square miles
in Northwest
Valley

Watershed run-off
to the 19-mile
McMicken Dam
Project

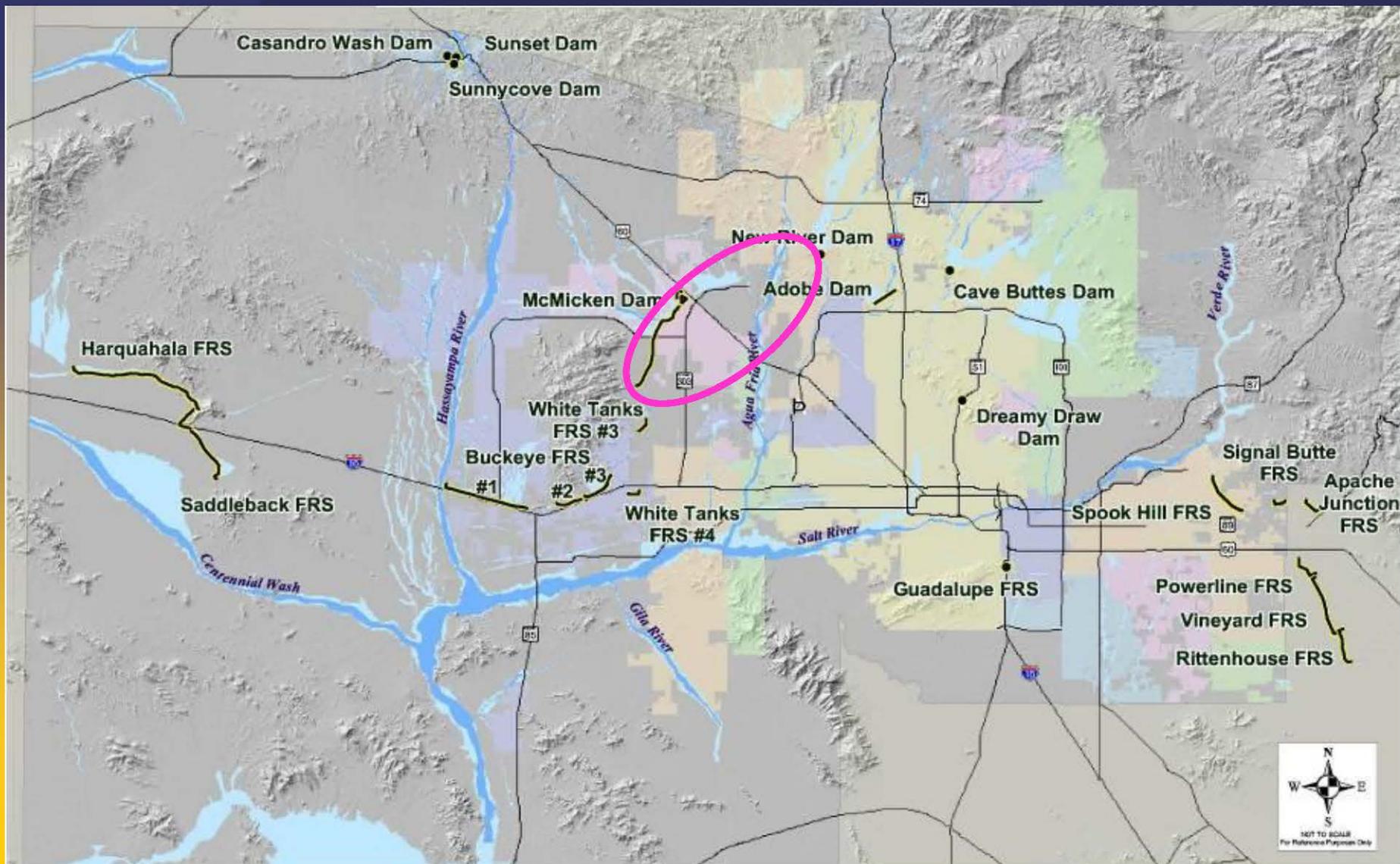


Purpose

Wittmann ADMP – McMicken Dam Project

- To analyze and develop alternatives
 - for mitigating the identified flood and erosion hazards in the Wittmann Study Area,
 - for the overall rehabilitation or replacement of the McMicken Dam Project
- To coordinate with project stakeholders and obtain public input to select an implementable alternative for the McMicken Dam Project
(3 cities, 2 counties, unincorporated communities, federal and state land, property owners)

Flood Control Dams Structural Assessment Program





McMicken Dam Project (Wittmann Area Drainage Master Plan)



Background

McMicken Dam

- 1951 - Record rainfall 7.3"-24hr. (13.6" total storm)
- 1954-1956 - Constructed by Corps of Engineers
- 1976 - Breached by Corps of Engineers due to transverse cracking
- 1982 - Breaches repaired and central drain/filter constructed by FCDMC
- Original function was to protect Luke AFB and agricultural lands
- Provides 100-year flood protection
- Safety deficiencies have been identified

McMicken Dam

Interim Dam Safety Measures

2002 - Geotechnical Investigations Fissures identified adjacent to south end of dam

2003 - Fissure Remediation Alternative Analysis

2005 – McMicken Dam FRZR constructed



McMicken Dam

Interim Dam Safety Measures

2003 - Updated hydrology and hydraulics identify increased risk of flooding due to excessive vegetation in the emergency spillway

2005 - Corps of Engineer 404 Permit

2006 – Vegetation Removed



McMicken Dam

Interim Dam Safety Measures

2006 – Transverse crack identified through dam where crack protection does not exist.

2007 – ADWR approved design by AMEC for IDSM

Current – District implementing IDSM

To be completed
by end of June 2007

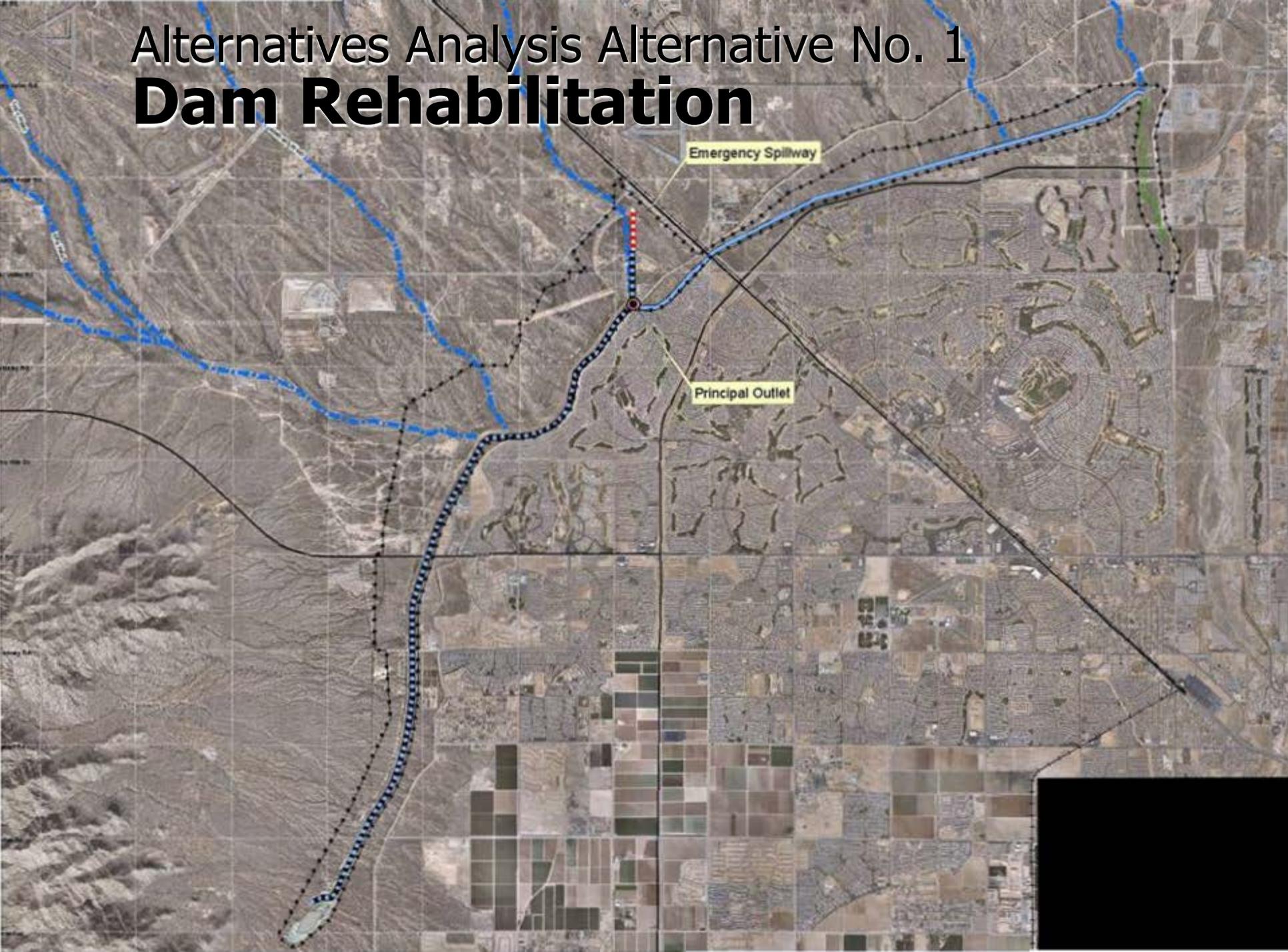


Alternatives Analysis

- Preliminary Analysis – completed
- Evaluate and obtain additional engineering data – completed
- Secondary Analysis – completed
- Tertiary Analysis – Evaluate 3 alternatives (in progress)
- Final Analysis
- Start Design

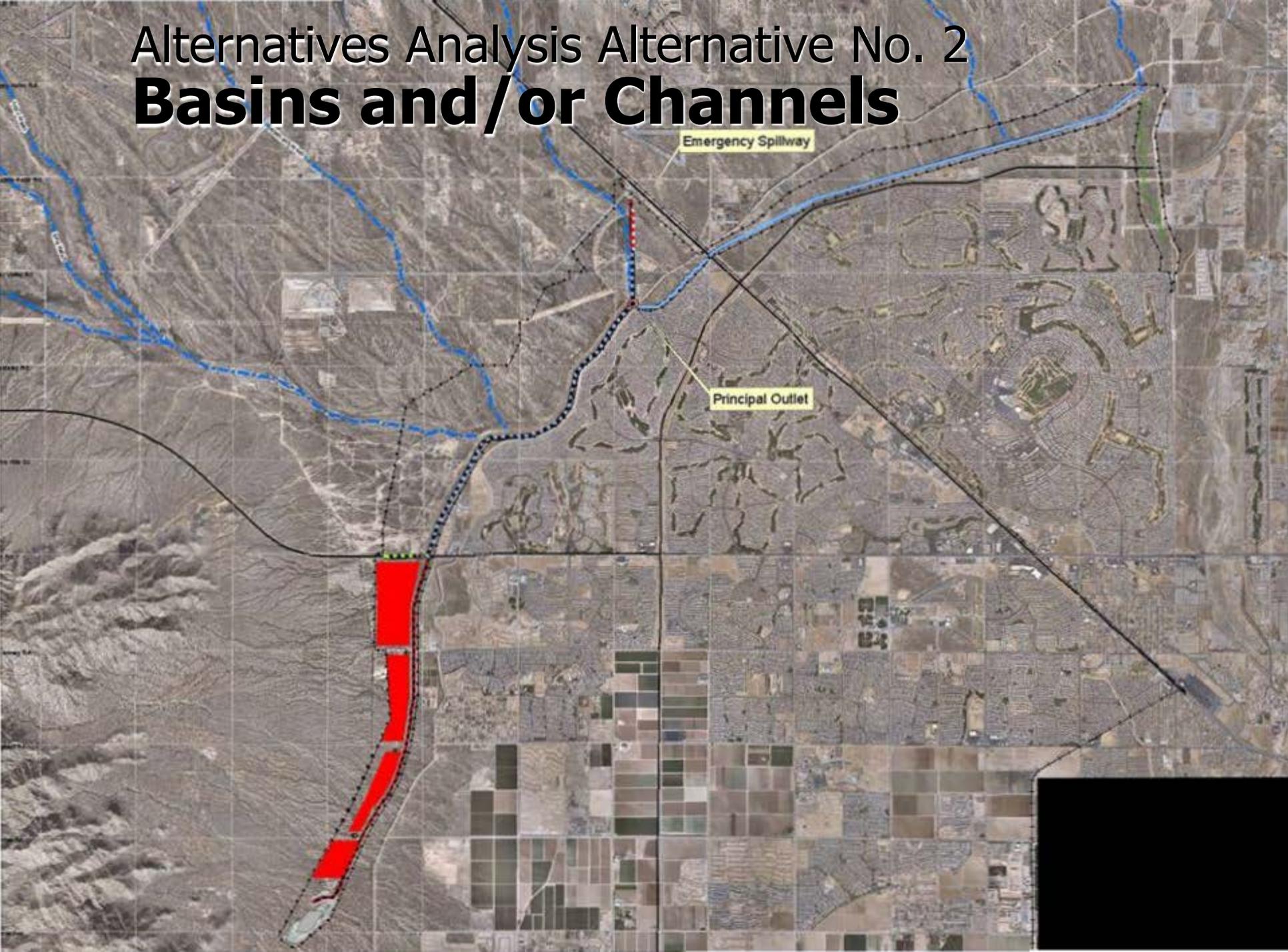
Alternatives Analysis Alternative No. 1

Dam Rehabilitation



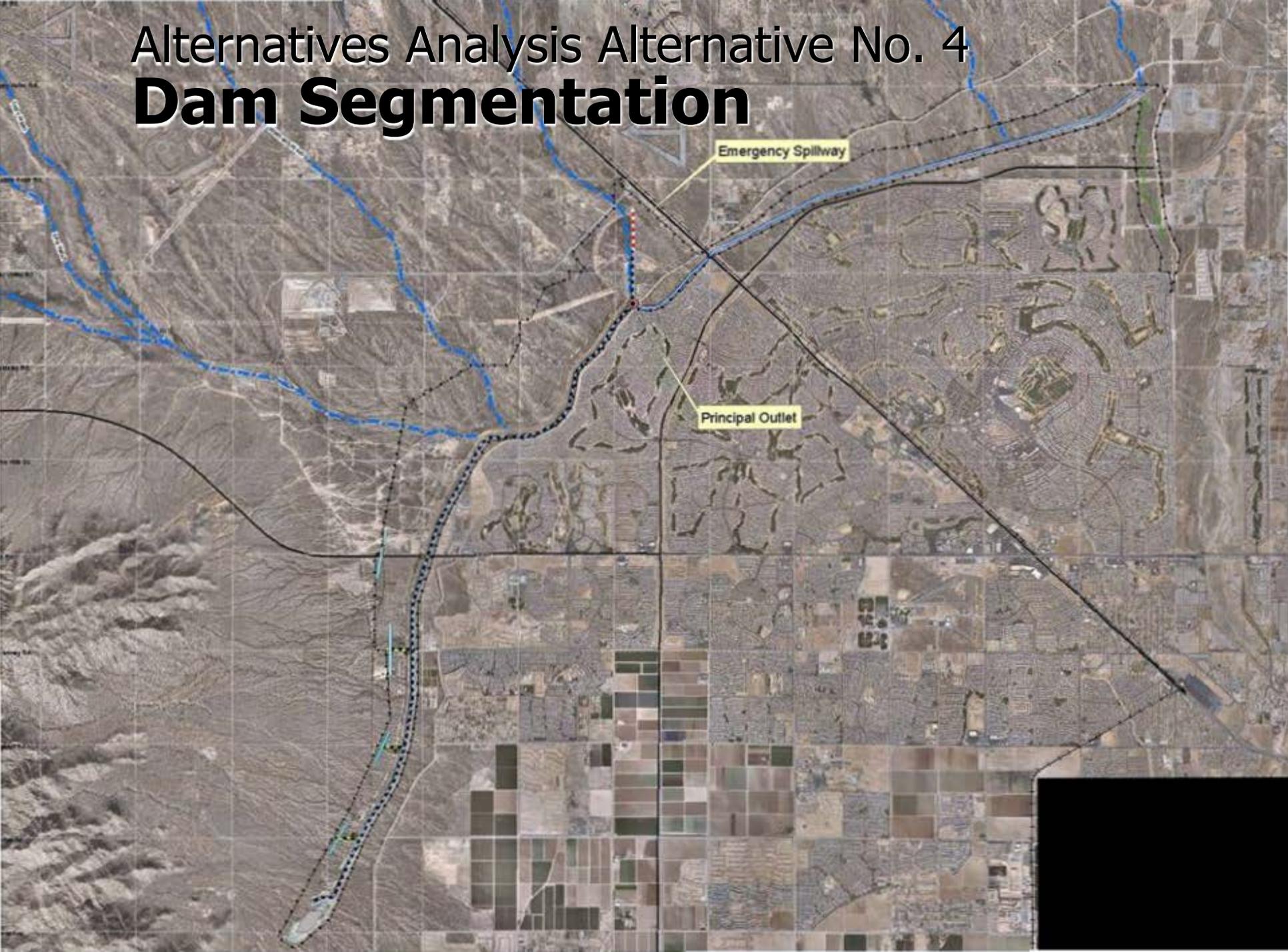
Alternatives Analysis Alternative No. 2

Basins and/or Channels



Alternatives Analysis Alternative No. 4

Dam Segmentation



Scenery, Recreation and Open Spaces Resource Assessment

- Program Goals and Objectives
- Project Level Assessment
 - Flood Protection Methods
 - Landscape Design Themes



McMicken Dam flood pool area

Landscape Architecture Branch **Program Goals**

- Protect landscape character
- Promote multi-use opportunities
- Preserve open space

McMicken Dam flood pool area looking west towards White Tank Mountains



Scenery Goal and Objectives

- Protect Landscape Character
 - Complement cultural setting
 - Retain distinctive scenic features
 - Maintain desert views
 - Restore degraded landscapes



Recreation Goal and Objectives

- Promote Recreation Use
 - Protect existing parks and recreation areas
 - Maximize opportunities to meet future recreation needs
 - Accommodate Maricopa Regional Trail



Open Space Goal and Objectives

- Preserve Open Space
 - Achieve consistency with MAG Desert Space Plan
 - Achieve consistency with local general plan

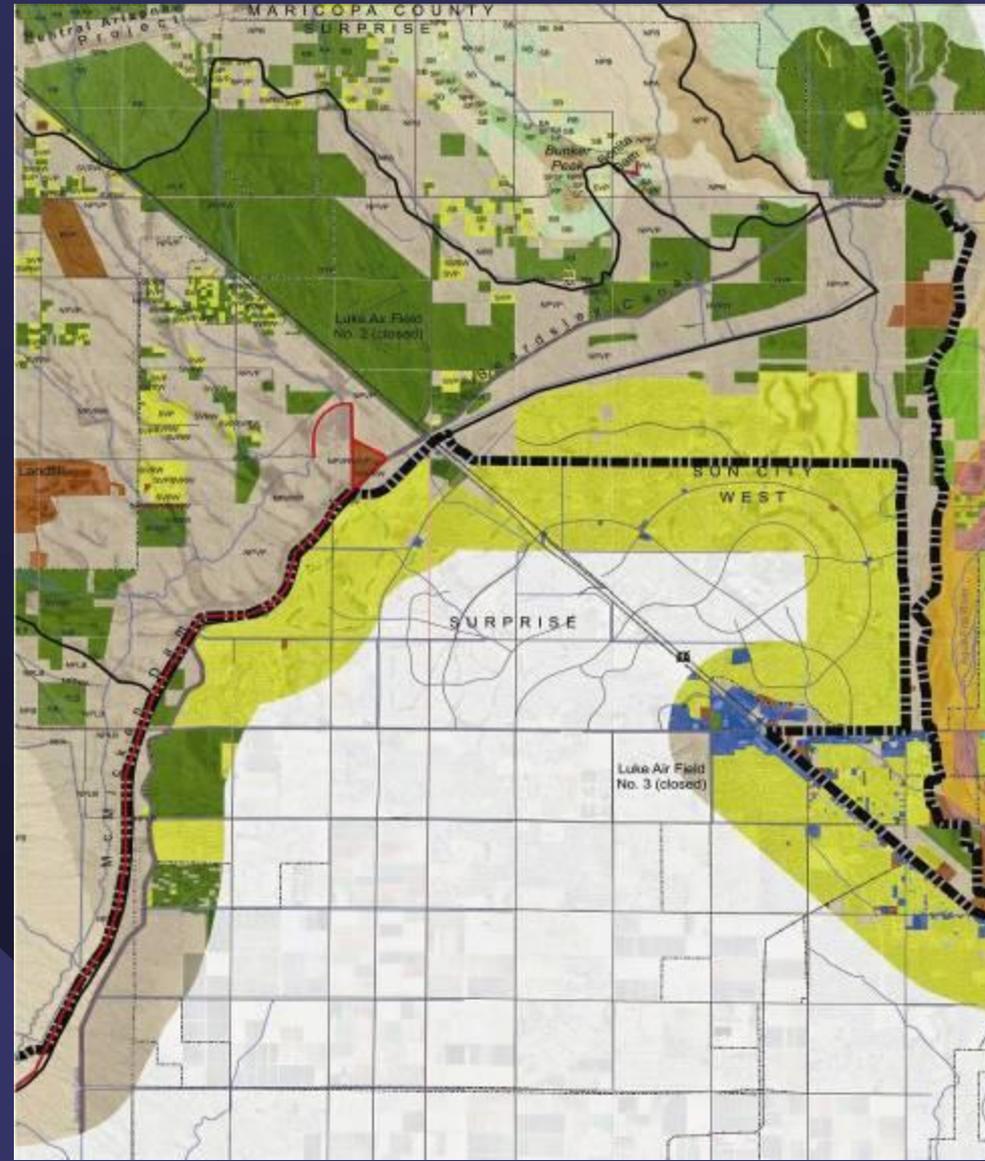


Wittmann ADMP – McMicken Dam Project

Landscape Character Assessment

Landscape Character Unit

- Physical Landform
- Cultural Settings



Wittmann ADMP – McMicken Dam Project

Landscape Character Assessment

Flood Protection Methods



Non-Structural

- Natural Form
- Natural Materials
- Structure Not Present



Soft Structural

- Organic Form
- Earthen Materials
- Structure Not Visible



Semi-Soft Structural

- Organic Form
- Earthen Materials
- Structure Slightly Visible



Hard Structural w/ Aesthetic Treatment

- Curvilinear Form
- Hard Materials
- Structure Visible as a Feature Attraction



Semi-Hard Structural

- Regular Geometric Form
- Earthen Materials
- Strongly Visible



Hard Structural w/o Aesthetic Treatment

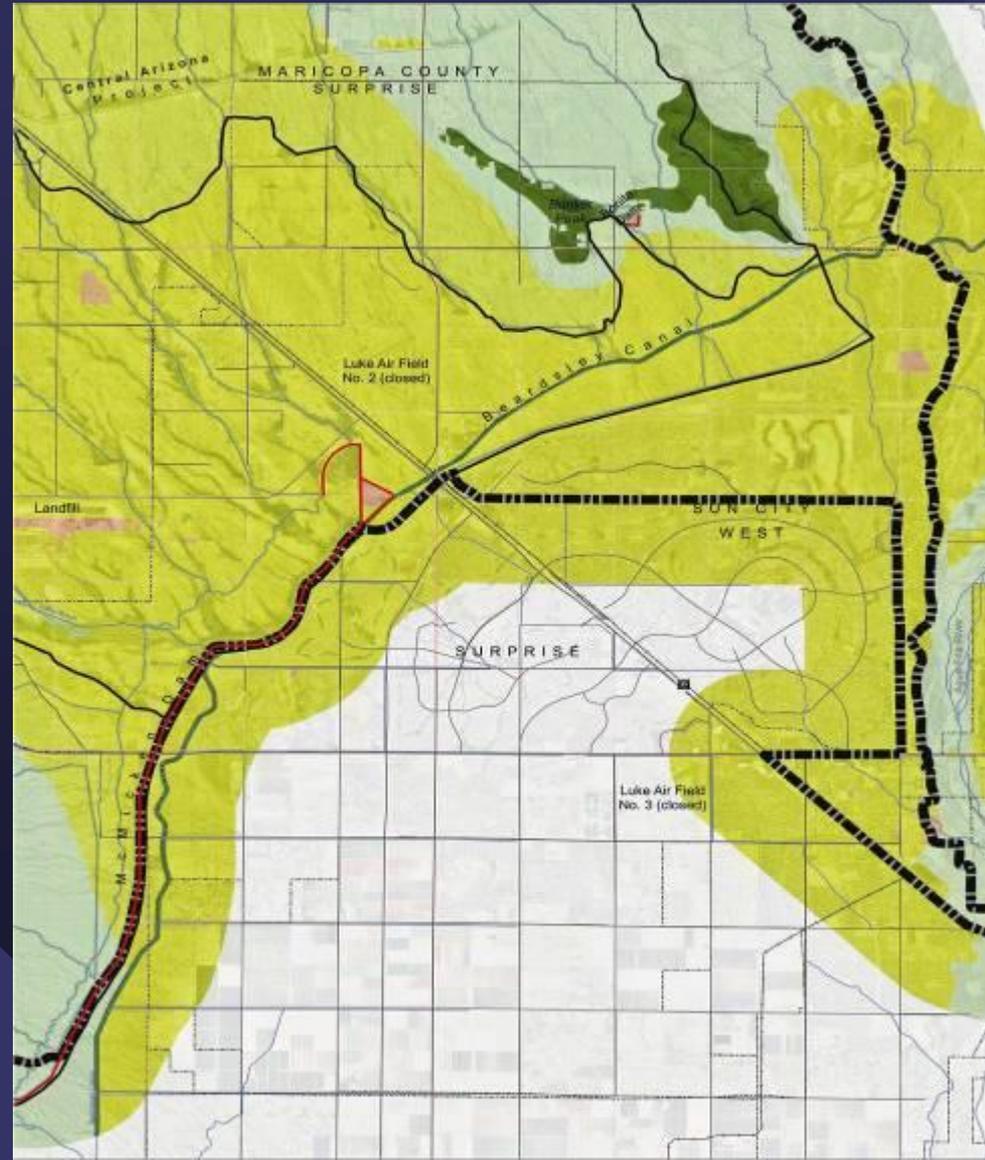
- Regular Geometric Form
- Hard Materials
- Very Strongly Visible

Wittmann ADMP – McMicken Dam Project

Landscape Character Assessment

Flood Protection Methods Compatibility Classes

- Predominately Semi-Soft Structural
- Limited Hard-Structural Compatibility



Wittmann ADMP – McMicken Dam Project

Landscape Character Assessment

Landscape Design Themes



Natural Theme

White Tanks 3 Emergency Spillway



Desert Oasis Theme

Wildfire Golf Course Conveyance Channel



Enhanced Desert Theme

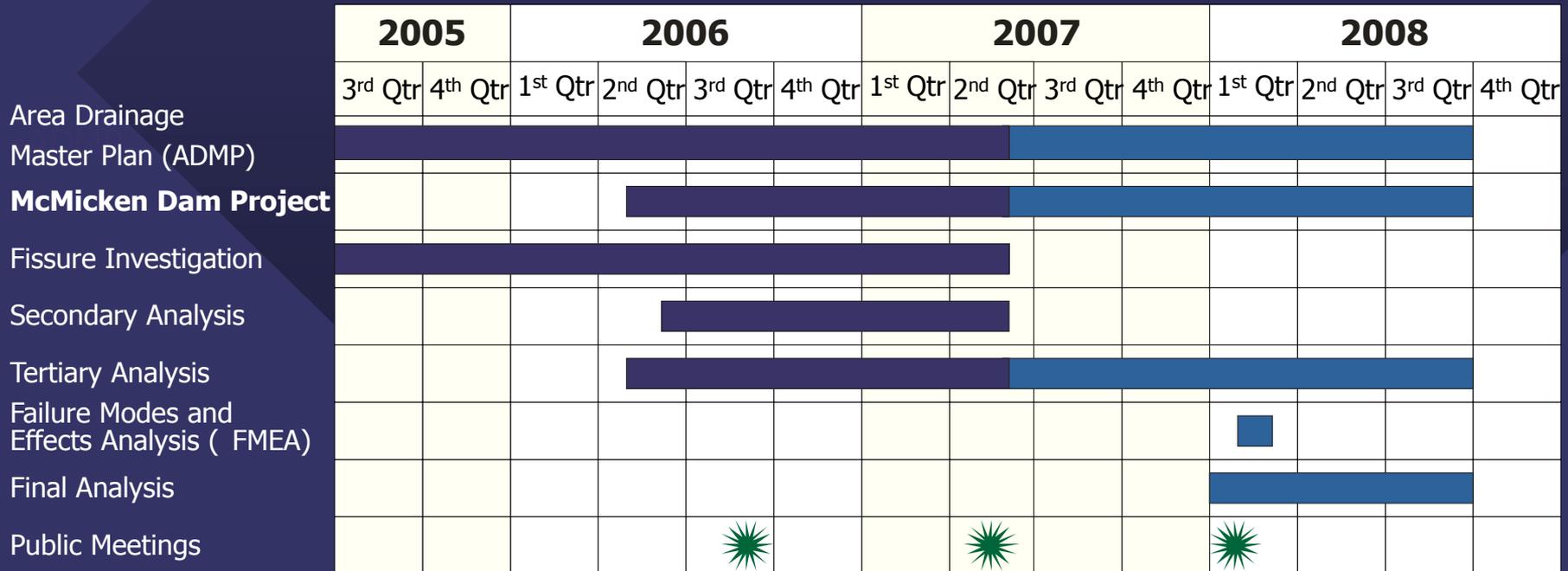
Oak Basin



Desert Park Theme

Laveen Area Conveyance Channel

Wittmann ADMP – McMicken Dam Project Schedule



Summary

- Develop a series of feasible alternatives
- Public meetings – Information to citizens, comments from citizens
- Next Steps
 - Conduct additional engineering analyses and narrow alternatives
 - Coordinate alternatives with possible solutions in entire study area
 - Select final alternative



Open House

Opportunity to talk individually
with staff and consultants

