



November 4, 2010

Public Meeting

Planning Study for Rehabilitation or Replacement of:

Powerline FRS

Vineyard Road FRS

Rittenhouse FRS

Felicia Terry, P.E., CFM

District Project Manager

Bob Eichinger, P.E., CFM

Kimley-Horn Project Manager

Contact Information

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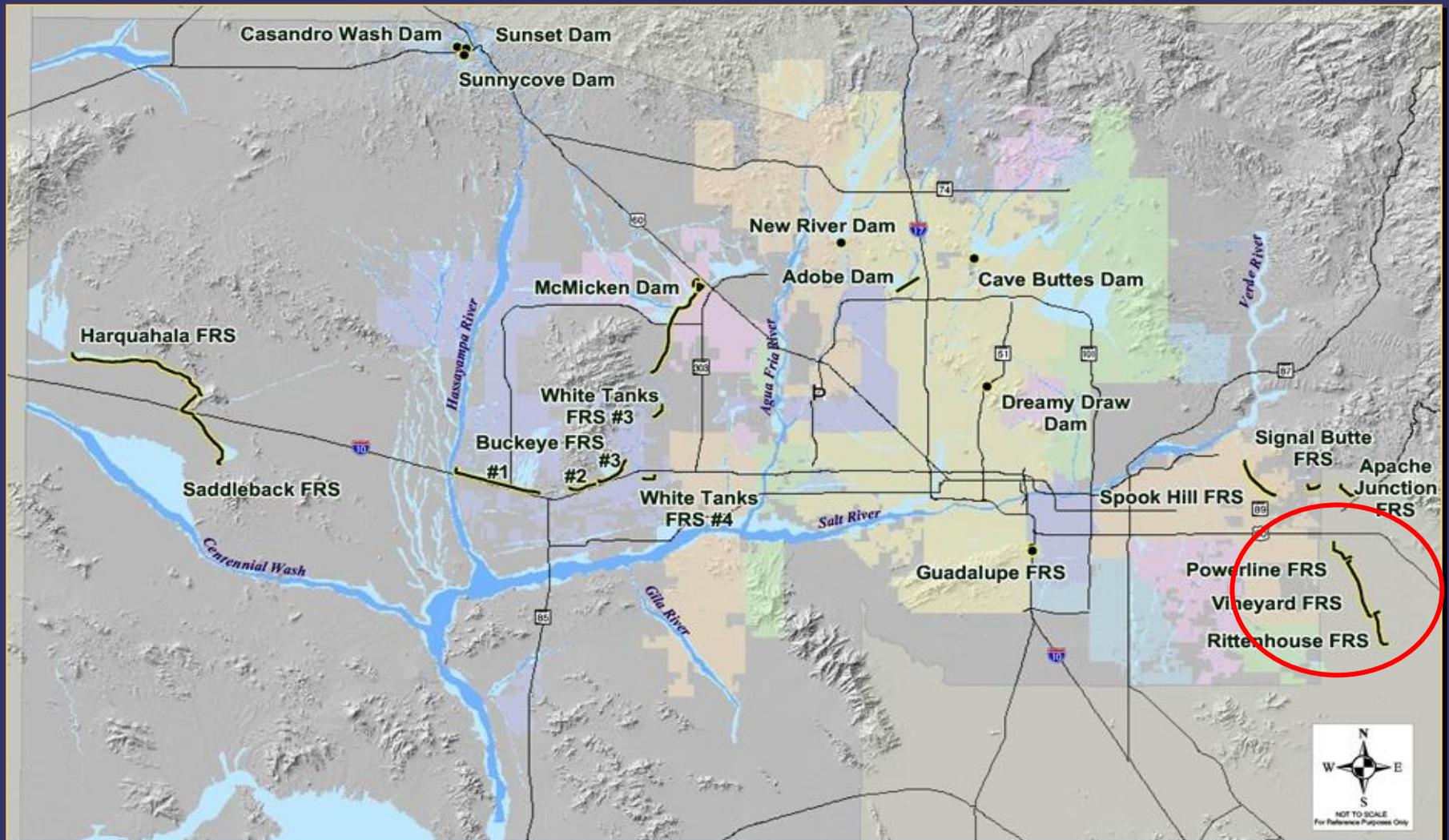


Meeting Purpose

- Define Project Purpose and Need
- Outline Public Involvement



District Flood Control Dams



Powerline FRS, Vineyard Road FRS, Rittenhouse FRS (PVR)

Project Background:

- Three Earthen Flood Control Dams Built by NRCS from 1967 to 1969
- PVR Dams Modified with Central Filters: 1991, 1983, 1979
- District is Local Sponsor
- District Operates and Maintains Under Agreements with NRCS
- ADWR is Regulatory Agency
- Located on Arizona State Land Department (ASLD) Property within Superstition Vistas area



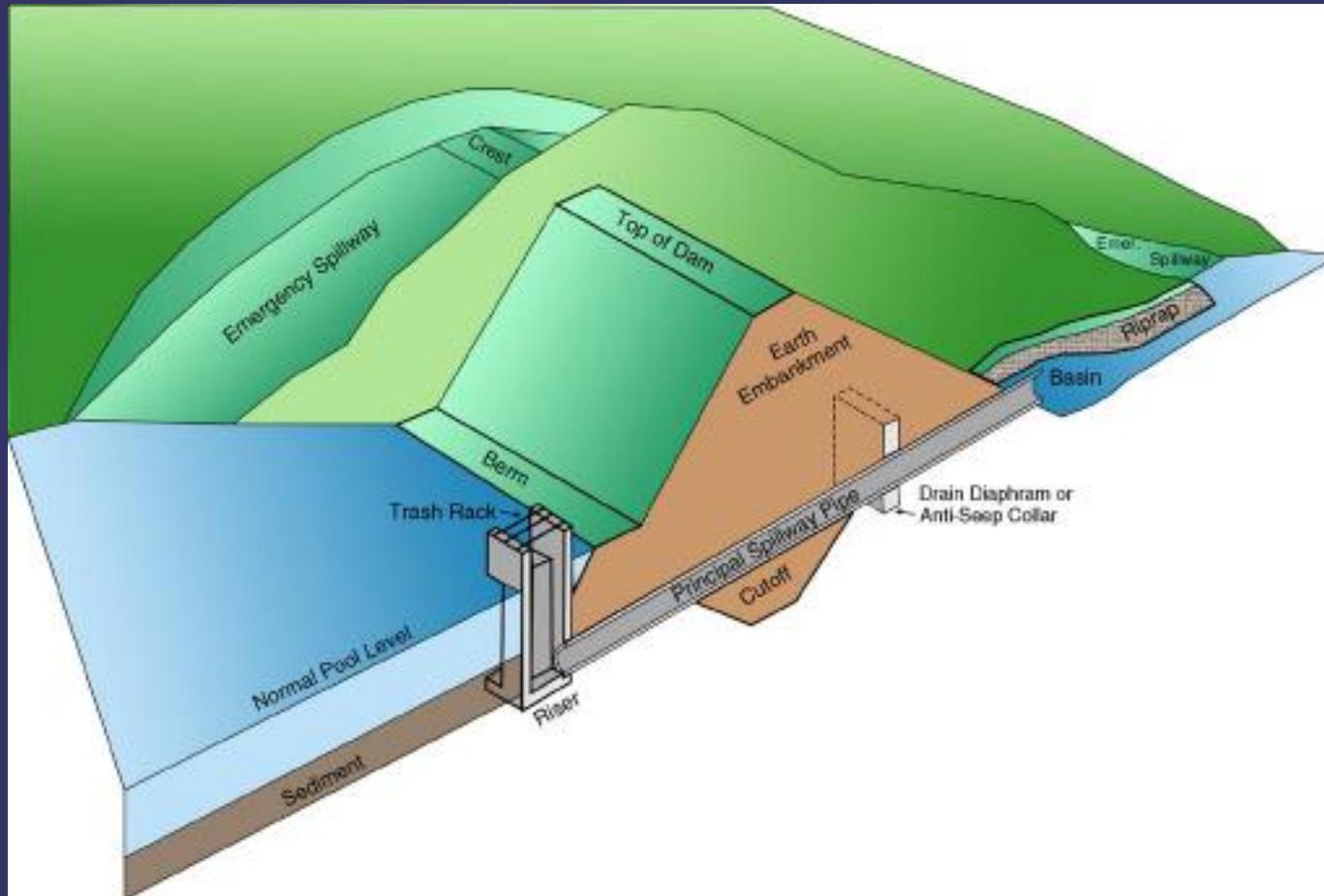
Powerline FRS, Vineyard Road FRS, Rittenhouse FRS (PVR)

Project Background:

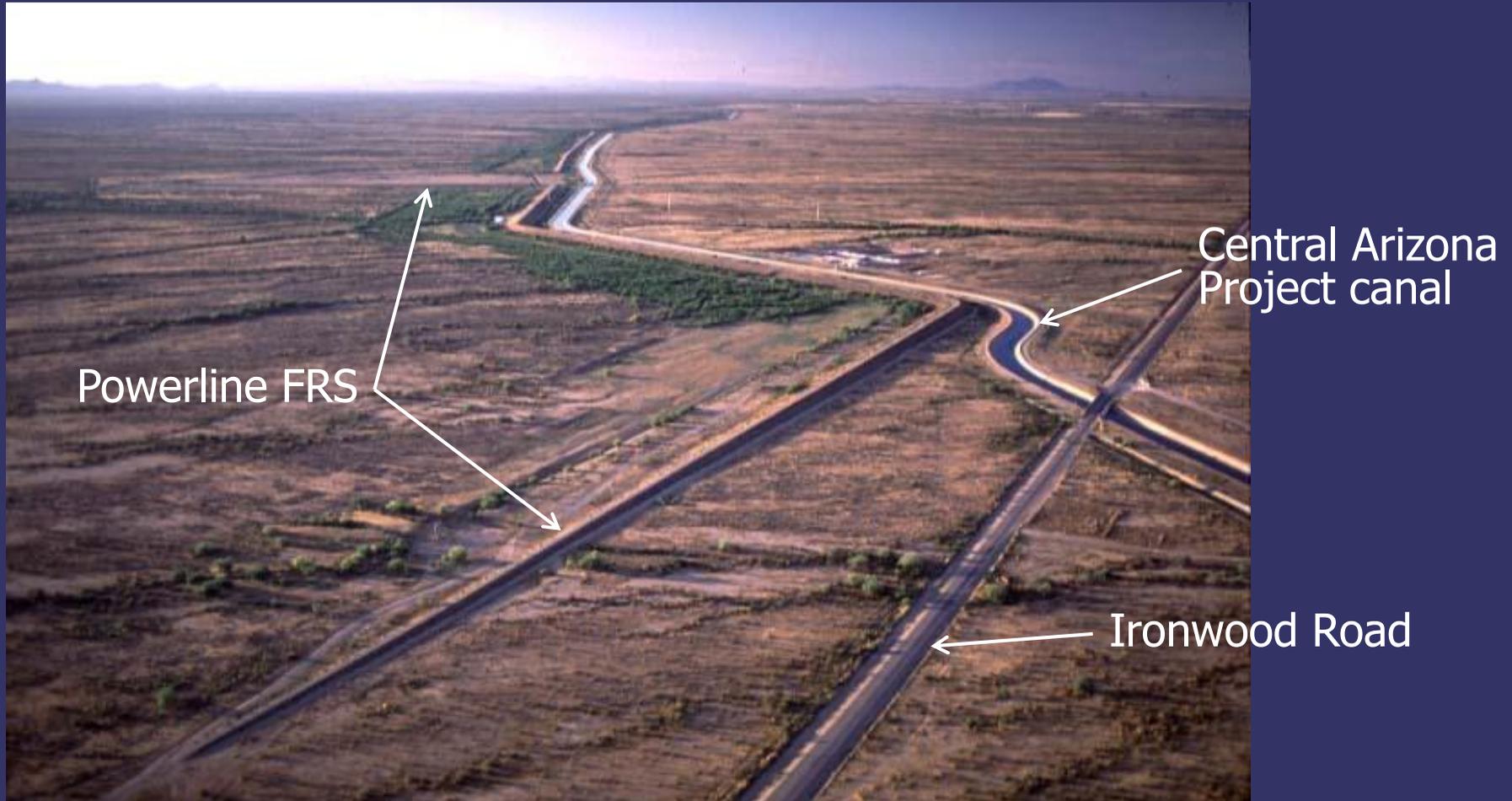
- PVR Dams Total 11.6 Miles in Length
- PVR Dams Max. Heights: 21 Ft, 16.5 Ft, 24.3 Ft
- Total Flood Storage of 12,600 Acre-Feet
 - (one acre foot = 325,850 gallons)
- Provide 100-year Flood Protection for 72 Square Miles
- Year 2000 Census Downstream Population: 157,000



Features of Typical Earthen Dam



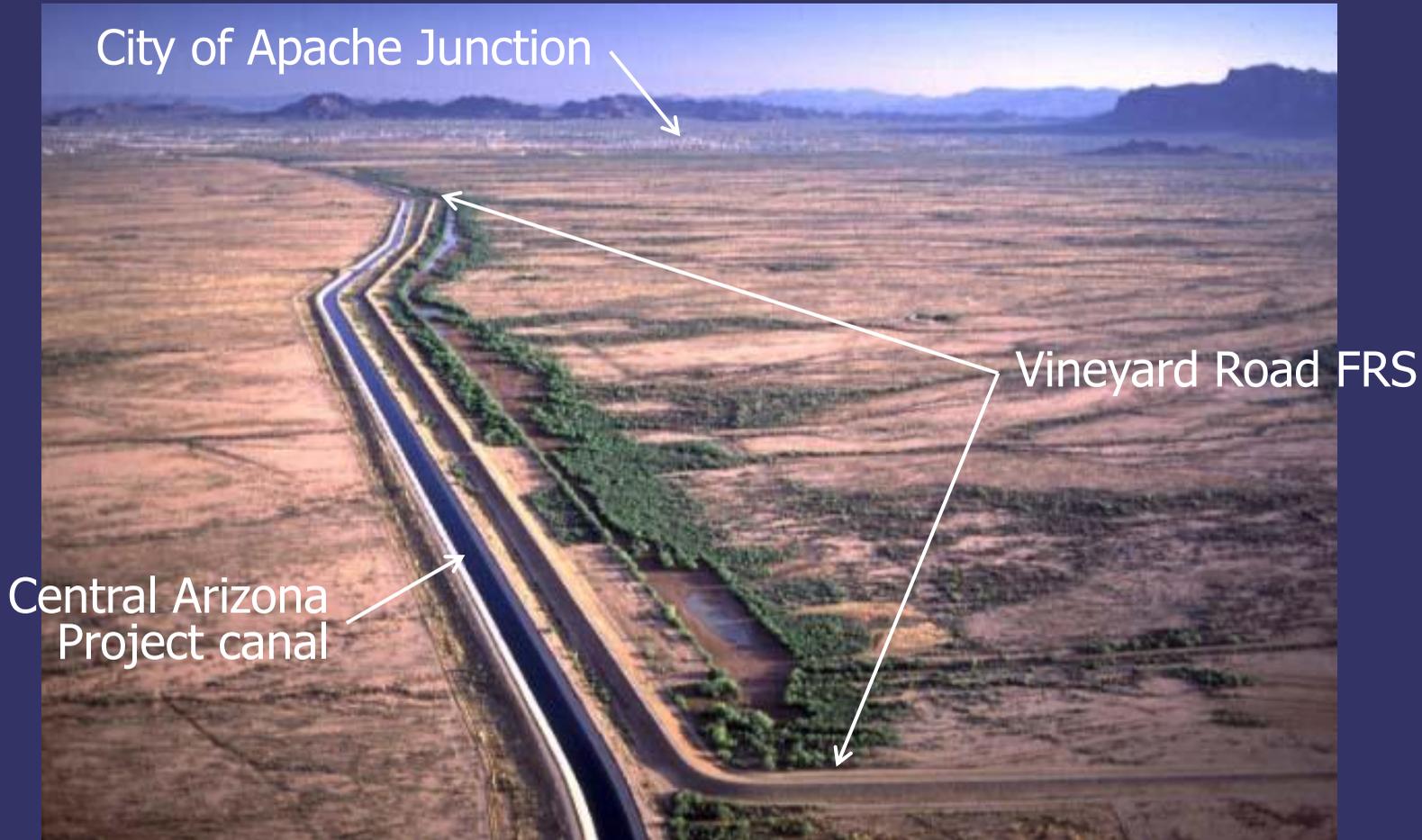
Powerline FRS



Looking Southeast



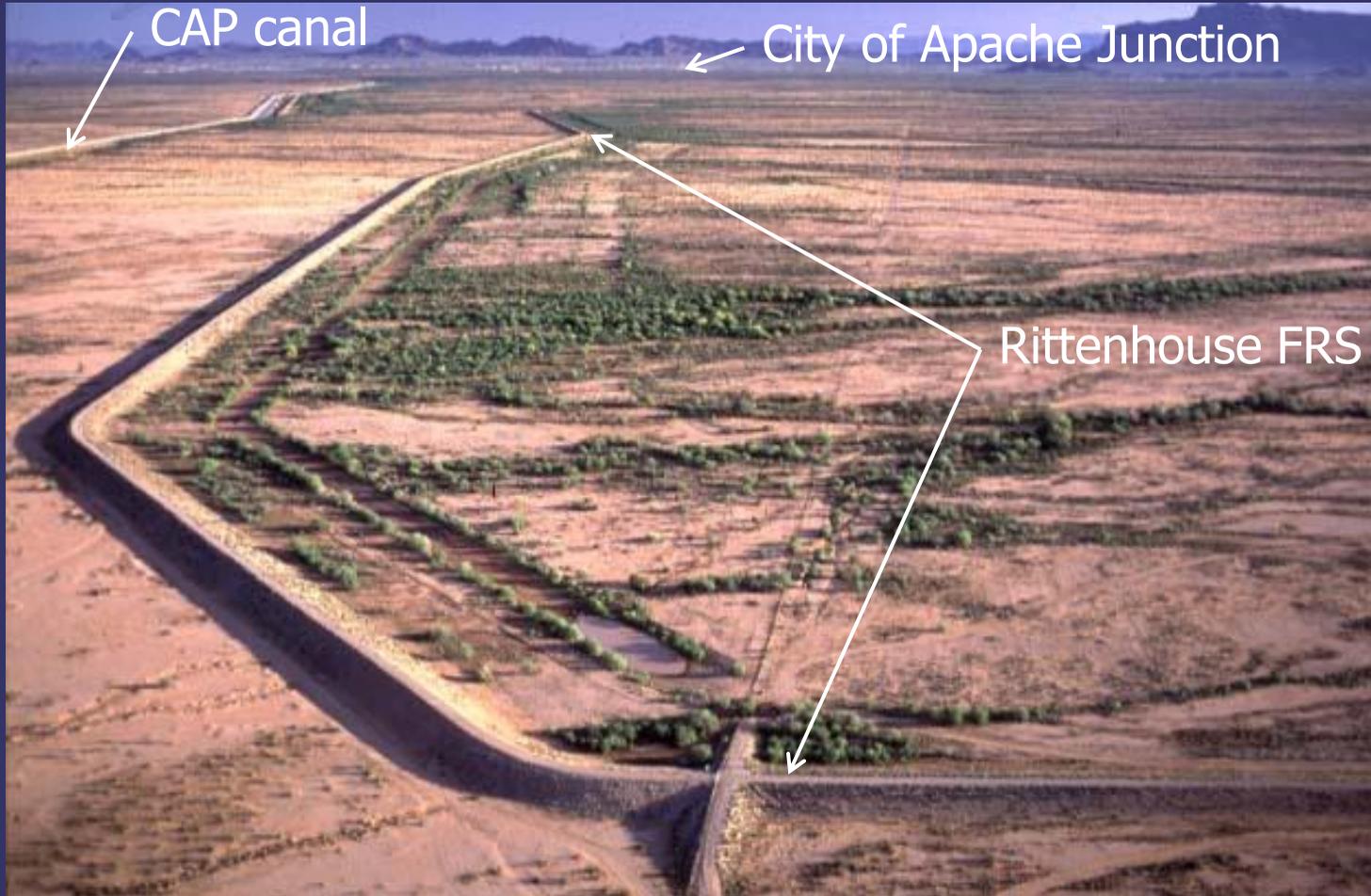
Vineyard Road FRS



Looking Northwest



Rittenhouse FRS



Looking Northwest



Powerline FRS, Vineyard Road FRS, Rittenhouse FRS (PVR)



October 20, 1972



Project Stakeholders

- Federal: NRCS
- State of Arizona: ASLD, ADWR, ADOT, AZGF
- County: Maricopa, Pinal
- Cities and Towns: Mesa, Apache Junction, Queen Creek
- Organizations: Superstition Vistas, Pinal Partnerships
- Utilities: SRP, CAP



Why are we Rehabilitating or Replacing the Dams?

- Potential for Overtopping During Large Flood Event
- Embankment Cracking
- Foundation Deficiencies
- Outlet Pipe Deficiencies
- Earth Fissures: Powerline FRS
- Land Subsidence: Powerline FRS, Vineyard Road FRS (North Third of Dam)



Embankment Cracking



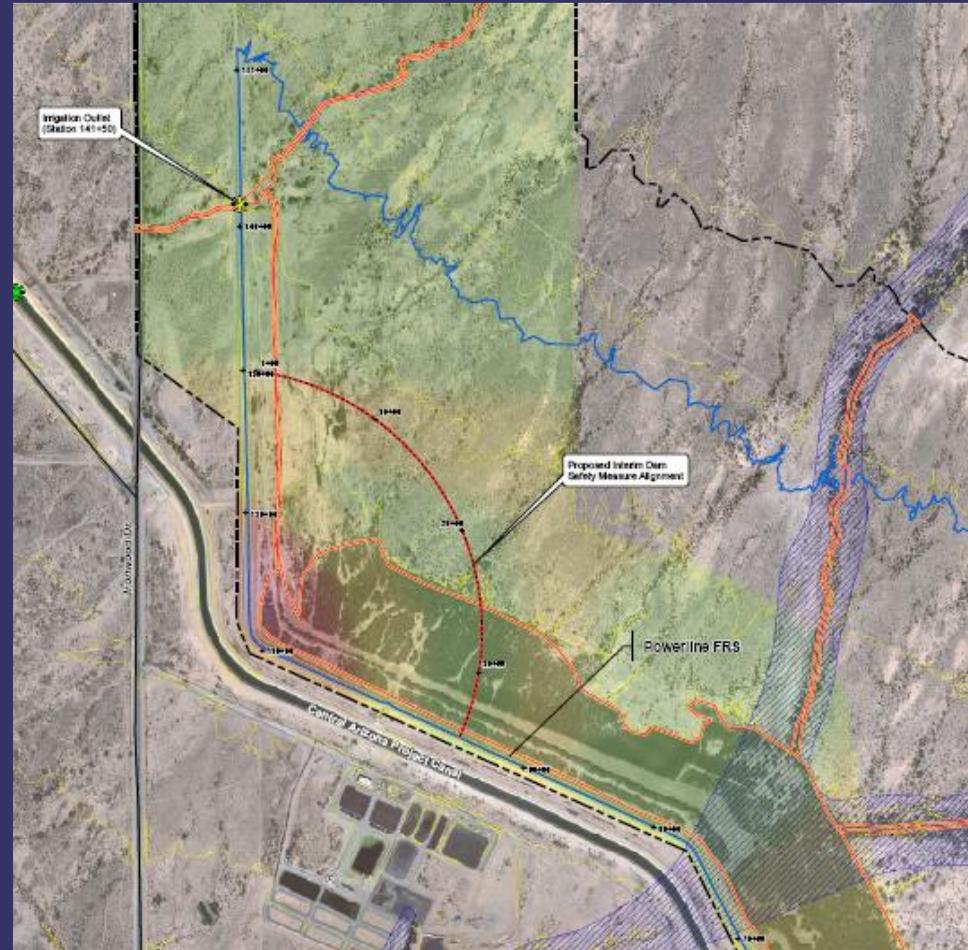
Embankment Cracking



Earth Fissures



Powerline Earth Fissure

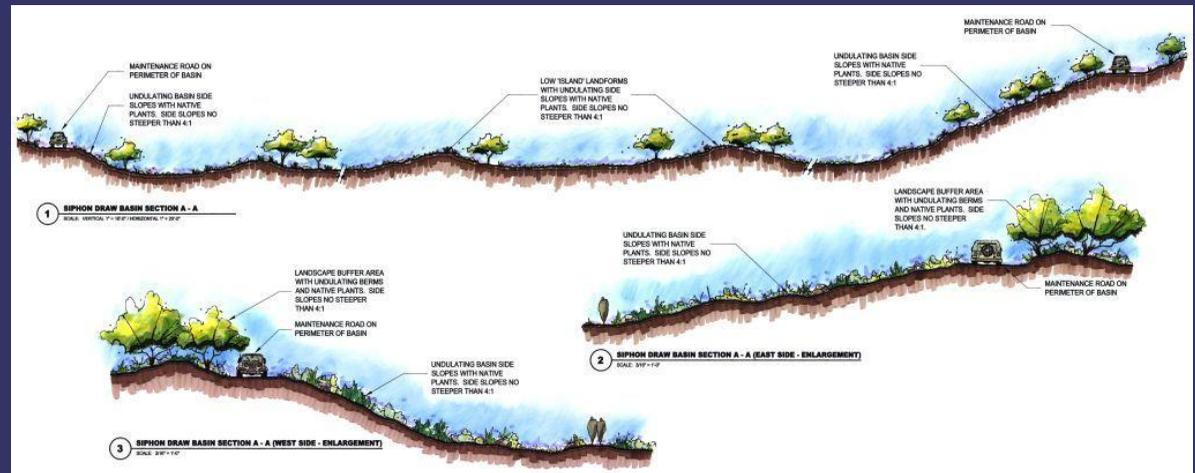
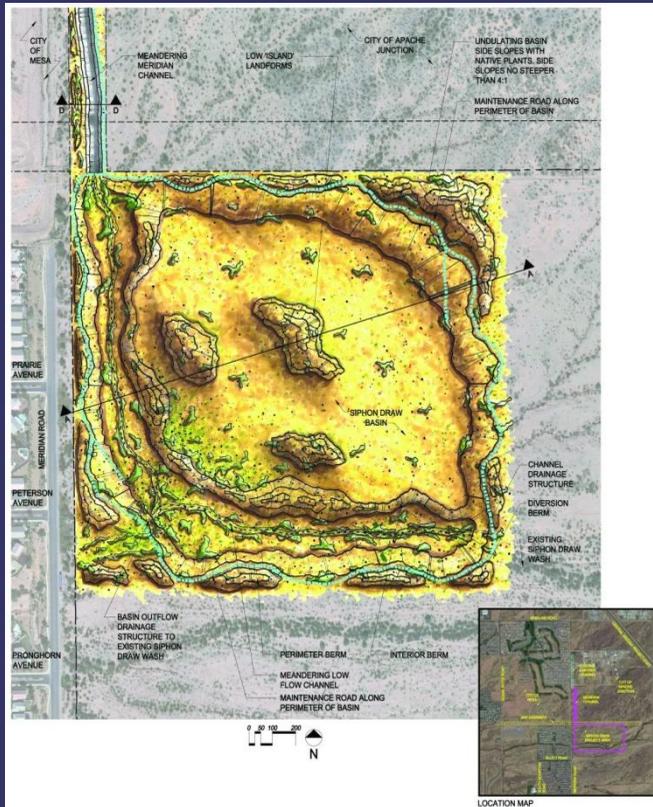


Alternative Types

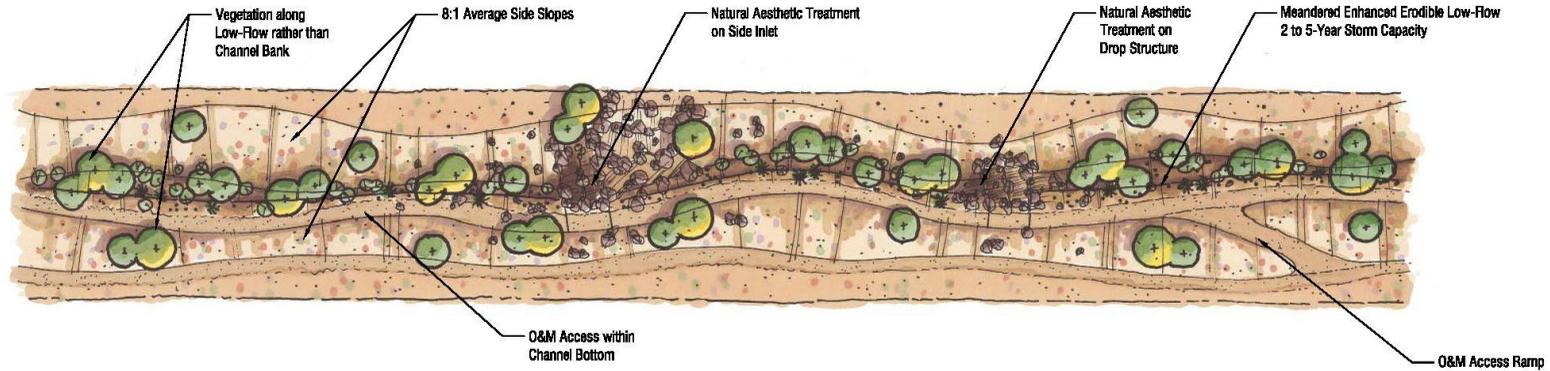
- Rehabilitation of Existing Dam
- Replacement
 - Detention Basins
 - Channels
 - Levees
- Combination Rehabilitation/Replacement
- Decommissioning



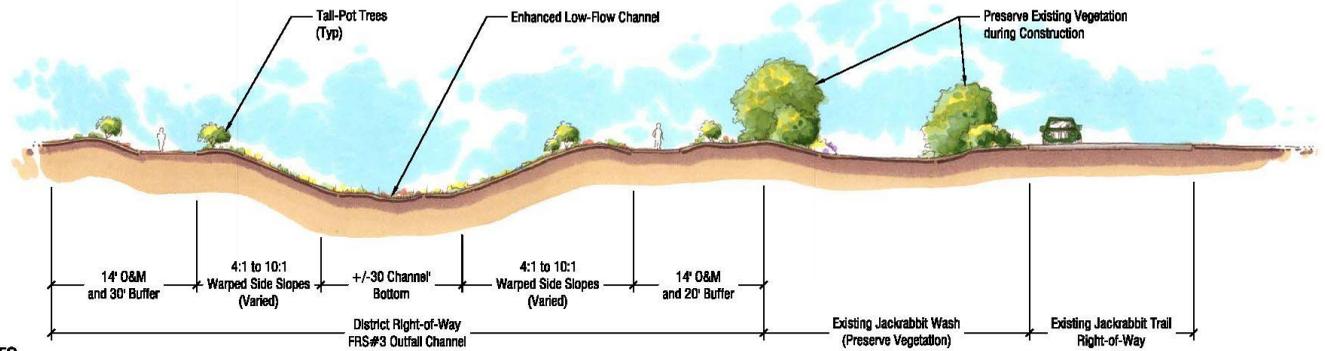
Detention Basins



Channels



Typical Plan View



Typical Section - NTS



Project Goals

- Primary District Goal is Long-Term Flood Protection
- Minimized Project Footprint is a Secondary Goal

Project Objectives

- Develop and Evaluate Alternatives for Rehabilitation or Replacement of the PVR Dams
- Select an Implementable Alternative
- Have NRCS be a Cost Share Partner
- Have Construction Completed in 10 to 15 Years



Federal Goals and Objectives

- Natural Resources Conservation Service (NRCS)
 - From a federal perspective, the following must be met:
 - Technically sound alternatives that meet the project purpose
 - At the least cost
 - Minimize or mitigate adverse environmental impacts



NRCS Dam Rehabilitation Program

Four Major Phases

Kimley-Horn
has completed
Phase I

We Are Here

PHASE 1	Assessment (USDA: PL566, PL534, Pilot Watershed, RCD projects)	Structures Assessment
	Sponsor Certification	Ability to obtain land rights Provide local funds for cost-share Fund available continued O & M
PHASE 2	Planning Comply with NEPA, National Historic Preservation Act, T&E Species	No action Decommissioning/removal Rehabilitate dam NED alternative Non-structural alternatives
	Cost-Share Agreements based on total cost of rehabilitation project	Prepare memorandum of understanding 65% Federal/35% local sponsors
PHASE 3	Design	Complete design that meets current NRCS standards and state standards whichever is more stringent
	Preconstruction	Prepare O & M plan Prepare EAP
PHASE 4	Construction	Construct Project



Overall Project Milestones

- Planning Study –
 - 2 years, (started 2009; end date June 2011)
- Rehabilitation Plan/EA and Watershed Agreement
- Final Design – 1.5 years – after Planning Study
- IGA with NRCS
- Construction in Phases (over period of 10 – 15 years)



Public Input/Involvement

- Identify any Public Issues or Concerns
- Document Issues/Concerns

- Poster Session



Next Steps for Public Involvement

- 1st Public Meeting (November 4, 2010)
 - Present Project, Issues and Concerns
- 2nd Public Meeting (End of Jan. 2011)
 - Present Alternatives
- 3rd Public Meeting (May 2011)
 - Present Recommended Alternative





**Rehabilitation or Replacement of:
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Vineyard Road FRS
Rittenhouse FRS**

Questions?

Poster Session

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