SOLVING A REPEATED FLOODING PROBLEM SEVERAL STRUCTURES AT A TIME

WICKENBURG FLOODPRONE PROPERTIES ACQUISITION PROJECT

June 20, 2018

Tim Murphy
Flood Control District of Maricopa County
Project Management Branch Manager
• Area: 9,224 sm.
• Population: 4,200,000 +
  4th Most Populous in US
• 25 NFIP Communities
• 18,500 NFIP Policies
  $10.5 Million a Year in Premiums
  90% Policies in CRS
  ~ 1/3 pre-FIRM (City of Phoenix > 41%)
• 1,630 Paid NFIP Claims
  $21.1 Million Total Since 1978
  Average 41 Paid Claims a Year
Some Past Flooding Events

1891 Salt River, Tempe

Territorial Capitol 1905

October 1964

1966 Salt River, Tempe

October 1964

2005 Wickenburg

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Flood Control District of Maricopa County
Established in 1959

- **Floodplain Management & Planning**
  - Floodplain Delineation, (4,000+ miles), Permitting & Regulations, Elevation Certificates, Watershed Studies, CRS (Class 4), CTP

- **Outreach**
  - Information, Storm Prep & Recovery, Project Specific

- **Flood Warning**
  - Rainfall Data (320 gages), Stream Gages (199), Weather Outlook

- **Floodprone Property Assistance Program**
  - Buyout, Elevation, Floodproofing

- **Flood Structures**
  - CIP ($68 million), O&M, Partnerships (federal, state and local)
  - Dams (22), Basins (370 acres), Channels (122 miles), Levees, Storm Drains and
  - Small Project Assistance Program

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Floodprone Property Assistance Program
(https://www.maricopa.gov/550/Floodprone-Property-Assistance-Program)

• Voluntary program
• Focus is on residential structures (inhabited) and to reduce their risk to due to flooding
• Eligibility, less than 50% damaged, inhabited within last 12 months, and meet minimum score
• Floodproofing considered before acquisition
• Compatible with USACE and FEMA programs
• Work with local jurisdictions
• Originally called “Alternative Flood Control Works” (1995)
• Not currently funded
Risk and Hazard Assessment Factors
FCD 2006R003A, March, 2015

- Flooding History (5 pts)
- Floodway Conveyance Factor (20 pts)
- Depth Below BFE (20 pts)
- Recurrence/Return Interval (10 pts)
- Access (Depth x Velocity) Hazard (15 pts)
- Erosion Hazard (10 pts)
- Flood Insurance Policy (5 pts)
- Response (Warning) Time (15 pts)
- Property Value (- 2 pts for every $100k over median value)

Need to score at least 40 points to be considered for acquisition

(https://www.maricopa.gov/DocumentCenter/View/450/Floodprone-Property-Assistance-Program-Policy-PDF)
Wickenburg Project

- Project Location
- Floodplain
- Watershed
- August 2014 Event
- July 2015 Event
- Aerial & Photo Tour
- Response
- Acquisition Project
- Demolition
- **Area:** 24.5 sm.
- **Population:** 7,400 (2017)
- **3,600 Dwelling Units**
- **49 NFIP Policies**
  - $63,900 a Year in Premiums
  - Not in CRS
  - 45% Policies pre-FIRM
- **35 Paid Claims**
  - $434,400 Total Since 1978
Project Location
Floodplain

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ASFPM June 2018
Watershed

8/25/2014
1.77 inches rainfall
Q = 564 cfs

7/18/2015
3.55 inches rainfall
Q = 2,300 cfs
August 25, 2014

Stream Discharge

8/25/2014
1.77 inches rainfall
Q = 564 cfs

Rainfall

40 Minutes
1.4 inches

8/25/2014
1.77 inches rainfall
Q = 564 cfs
July 18, 2015

Stream Discharge

Rainfall

7/18/2015
3.55 inches rainfall
Q = 2,300 cfs

15 Minutes
1.60 inches
~ 160 Year

1 hour
3.4 inches
~ 850 Year

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ASFPM June 2018
Aerials

2013

1. Constellation Rd
2.
3.
4.
5.
6.

2015

1. Powders House Wash
2. El Recreo Dr
Constellation Road

2011 Street View
Constellation Road

2015

2014
Constellation Road

2015

Powder House Wash

Flood Wall
Powder House Wash

2015

Flood Wall

Constellation Rd

Sediment

Flood Wall
Powder House Wash

2015
El Recreo Drive

2011 Street View

www.fcd.maricopa.gov
El Recreo Drive

2014
Pink House
El Recreo Drive

2011 Street View

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Response

One-Stop-Shop Management

Thursday, July 23, 2015 – FCD staff and other agencies working the one-stop-shop at the Wickenburg Community Center providing information to residents after the flooding.
Project Description

- FCD Goal: Voluntary buy-out before 2016 monsoon
- Offers based on "pre-disaster" appraisal
- Wickenburg: Unoccupied residence & vacant parcels
- FCD: relocate residents & demolish all structures
- Wickenburg: Reimburse cost of demo
- FCD: Deed properties over to Wickenburg at end
- Wickenburg: Perpetual maintenance as open space
- Wickenburg: Potential future USACE project / Park
Authorizing a Solution

• Resolution FCD 2015R008
  – Wickenburg Flooded Properties Acquisition Project
  – Companion Budget Adjustment
  – Floodprone Properties Assistance Program Model

• IGA FCD 2015A013
  – Partnership between Wickenburg & FCD
  – Flood Control: acquire 6 “occupied” houses
  – Wickenburg: unoccupied house & vacant parcels
Project Budget

- Title Reports & Appraisals: $18,000 (FY15-16)
- Acquisitions: $945,000 (FY15-16)
- Relocation & Demolition: $273,000 (FY16-17)
- Wickenburg Acquisitions: ~$110,000
- Total Project for FCD: $1.2 million
Process of Voluntary Buy-Out

- IGA adopted by Town and District
- Meet with homeowners – provide applications
- Obtain Title Reports (some upside down)
- Obtain “Pre-Event” Appraisals
- Buy-Out Offers (based upon appraisal)
- Move-Out/Relocation Allowance
- Asbestos/Lead remediation & removal
- Demolition
Glitches

- Bank sold damaged house to investor
- Investor doing repairs w/o permits
- Substantial Damage (> 50% of value)
- Notice of Violation issued
More Glitches

- Upside-down properties
- Flood insurance purchased 15 days prior to event
- Reluctance “Maybe it’s not so bad”
- Lifetime collection “classic” autos & parts
Project Status

- FCD: 6 of 6 Homes Acquired ✓
- Wickenburg: 1 of 1 Homes Acquired ✓
- Wickenburg: 2 of 2 Vacant Parcels ✓
- County Facilities Management
  - Board up of vacant structures ✓
  - Asbestos testing & abatement ✓
  - Demolition (7 out of 7 homes) ✓
Demolition
El Recreo Dr
10/25/2016

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Demolition

El Recreo Dr

10/25/2016

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Demolition

El Recreo Dr

10/25/2016

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Demolition
El Recreo Dr

Before

After
Demolition

Jack Burden

Before

Oops!

After
Demolition

Jack Burden

Before

After

www.fcd.maricopa.gov
For these 7 homeowners

Flooding is no longer a participant event

Flooding is now a spectator event
Questions?

= occupied structure; possible District acquisition

= unoccupied structure/vacant land; possible Town acquisition

Hassayampa River

Powder House Wash