Airport Wash (South) Basin Management Study
Airport Wash South Basin Management Study

- Presentation followed by small group discussions/Q&A
  - RFCD - Introduction to Project
  - CMG - Existing Conditions
  - KHA - Project Recommendations
  - WMG - Green Infrastructure
  - RFCD - Next Steps
- Comment Cards & Project Boards for Questions/Information
Visit Our Website

1) Visit [www.pima.gov](http://www.pima.gov)

2) Enter ‘Airport Wash’ in search bar

3) Click the link listed first

4) Read Project Information
Data Gathering

- inventoried existing drainage systems
- surveyed drainage structures
- gathered other data:
  - previous studies and plans
  - COT drainage complaint records
  - historic flooding accounts—Neighborhood Assoc. outreach, news accounts, NWS rainfall records
Sept. 15, 2011: Multiple storms flood streets and buildings, force evacuation of homes and keep fire/rescue cre

September 15, 2011 4:33 pm

Powerful storm floods southside

Kelly Presnell/Arizona Daily Star

Jared Trevena makes his way to higher ground through the waist deep waters inundating the parking lot and parts of the Pima County Community College Aviation Technology Center near Tucson International Airport.
National Weather Service KIWA Dual-POL Rainfall Estimates

Sep 15, 2011
Tucson Airport
2.84” rain
Drainage Inventory Map
Existing Flooding Conditions

- 100-year Storm
- Computer models used to simulate floods
- Flood Depth Maps for urban areas in the Valencia, El Vado & Santa Clara Watersheds
- Floodplain Limits Map for Hughes Wash Watershed
Example Urban Area Flood Depth Map
El Vado Wash at Santa Clara Ave
Example Hughes Wash Floodplain Map
Problem Areas Map
Alternative Analysis

- **Steps Included**
  - Identify alternatives in Study Area
  - Apply defined criteria
  - Select Final 12 Projects and determine conceptual feasibility and cost
Alternatives Comprised of:

Valencia Watershed
Santa Clara Watershed
El Vado Watershed
Hughes Watershed
Regional Basins
Culverts
Storm Drains
# Final Projects Selected

<table>
<thead>
<tr>
<th>Project ID</th>
<th>Description</th>
<th>Estimated Cost</th>
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<tbody>
<tr>
<td>EV1</td>
<td>Add upstream basin and upgrade UPRR structure to Desert Diamond channel.</td>
<td>$1,544,000</td>
</tr>
<tr>
<td>EV2</td>
<td>Add flood wall, add collector channel, and add culvert to cross Los Reales Rd near Desert Diamond Casino.</td>
<td>$446,000</td>
</tr>
<tr>
<td>EV3</td>
<td>Add channel upstream of UPRR, upgrade UPRR structure near PCC Aviation Technology Center, ask PCCATC to regrade parking lot, add basin at NW corner of Los Reales Rd/Old Nogales Hwy, and add storm drain to El Vado Wash. There would be an equalizer culvert between the 2 basin sections.</td>
<td>$943,000</td>
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<tr>
<td>EV4</td>
<td>Upgrade storm drain from 6th Ave/Corona Rd to El Vado Wash auxiliary channel. Add curb and gutter from 6th Ave/Corona Rd to 6th Ave/Missiondale Rd.</td>
<td>$586,000</td>
</tr>
<tr>
<td>EV5</td>
<td>Add basin at NW corner of Calle Medina and Santa Clara Ave, add storm drain from basin to channel underneath Calle Sevilla, channel from storm drain to I-19 structure, and improve the inverted crown on Calle Medina from Santa Clara Ave to I-19.</td>
<td>$1,591,000</td>
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<tr>
<td>EV6*</td>
<td>Add storm drain from Teton St/Pacheco Ave to Calle Mediana basin.</td>
<td>$980,000</td>
</tr>
<tr>
<td>EV7*</td>
<td>Add Culvert across Santa Clara Ave between Calle Medina and Calle Aragon.</td>
<td>$269,000</td>
</tr>
<tr>
<td>SC1</td>
<td>Add storm drain from Turquoise Ln/Mesquite Dr to Los Reales Rd/12th Ave, upgrade storm drain near Los Reales Rd/12th Ave to Santa Clara Wash, and add new curb and gutter on Los Reales Rd south from 12th Ave.</td>
<td>$736,000</td>
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<tr>
<td>V1</td>
<td>Add upstream structure at UPRR near Calle Medina, add basin at NW corner of Calle Medina and Old Nogales Hwy, and add 2 sections of storm drain, and 2 sections of new curb and gutter. Sections of storm drain would run from the basin to Valencia Wash culvert at Valencia Rd from basin and from 6th Ave/Aragon Rd to 6th Ave/Calle Medina. Curb and gutter improvements would be from 6th Ave/Aragon Rd to 6th Ave/Calle Medina and from 6th Ave/Lermo Rd to Missiondale Rd/Lermo Rd.</td>
<td>$1,206,000</td>
</tr>
<tr>
<td>V2</td>
<td>Add basin at NE corner of Calle Medina/6th Ave, add storm drain to Valencia Wash, add storm drain and curb and gutter from Aragon Rd/6th Ave to Calle Medina/6th Ave, and add curb and gutter from 6th Ave/Lermo Rd to Missiondale Rd/Lermo Rd.</td>
<td>$1,227,000</td>
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<tr>
<td>V3</td>
<td>Add basin south of Santa Paula St between Fiesta Ave and 8th Ave and storm drain to Valencia Wash.</td>
<td>$732,000</td>
</tr>
<tr>
<td>V6</td>
<td>Add basin at Mission Manor Park, add storm drain to channel and channel to I-19 culvert.</td>
<td>$517,000</td>
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**Total Estimated Cost** $10,777,000

* Project must be programmed after EV5
** Total does not account for inflation for projects programmed in the future
El Vado Watershed Vicinity
El Vado – Watershed Level Focus
El Vado – Detention Basins/Culverts
El Vado – Storm Drains
El Vado – Channels/Inverted Crown
El Vado – Floodwall
El Vado – Projects EV1-EV7
Project EV5 – A prior concept

Drachman Institute Concept (2009)
Santa Clara Watershed Vicinity
Santa Clara - Watershed Level Focus
Santa Clara – Storm Drains
Santa Clara – Project SC1
Valencia Watershed Vicinity
Valencia - Watershed Level Focus
Valencia – Detention Basins/Culverts
Valencia – Storm Drains
Valencia – Projects V1-V3, V6
WATERSHED MANAGEMENT GROUP
REDUCING FLOODING
CREATING NEIGHBORHOOD OASES

Kieran Sikdar
Program Manager

www.watershedmg.org
Grey Infrastructure to Green Infrastructure
What Can You Do?

Get involved! Implement your project!

Visit www.watershedmg.org
Next Steps

- RFCD/WMG refine Green Infrastructure opportunities
- Jurisdictions work together to prioritize funding
Phase 2 – Airport Wash
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