El Paso Stormwater System

Progress Update

March 2009
Stormwater Utility
Efficient Operations

• Before:
  – No stormwater system emphasis because of other priorities

• Now:
  – Resources committed to operations and maintenance of stormwater system
  – Master Plan in place to fix stormwater infrastructure
The Size of the Challenge

<table>
<thead>
<tr>
<th>EPWU Stormwater Facilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dams</td>
<td>39</td>
</tr>
<tr>
<td>Pump stations</td>
<td>16</td>
</tr>
<tr>
<td>Detention/Retention ponds</td>
<td>275</td>
</tr>
<tr>
<td>Channels</td>
<td>69 miles</td>
</tr>
<tr>
<td>Agricultural drains</td>
<td>39 miles</td>
</tr>
<tr>
<td>Storm drain conduits</td>
<td>57 miles</td>
</tr>
<tr>
<td>Storm drain inlets</td>
<td>5,000</td>
</tr>
</tbody>
</table>
Size of the Challenge

Deferred Maintenance
Deferred Maintenance

Size of the Challenge
Signs of Progress

• **Funding:** Because it now has a dedicated source of funding, the system is seeing improvements that would not have been occurring otherwise

• **Maintenance:** aggressive “catch up” activities

• **Capital Improvements:**
  – Short-term
  – Long term: Stormwater Master Plan development
Stormwater Maintenance Projects
(1,175 completed as of 2/16/09)
Before: Pershing Dam
After: Pershing Dam
The Wet Commute on I-10
Cebada Pump Station Improvements

- 6 pumps rehabilitated or replaced
- New electrical system
- Automatic operation
- Monitored remotely

Original City of EP Bid price: $4,807,000
EPWU Construction Cost: $2,080,638
Signs of Progress

Before: Stephanie Basin
After: Stephanie Basin
Future Capital Projects

Stormwater Master Plan

• Engineering firm developed Master Plan
• Stormwater Master Plan Community Advisory Committee provided input on priority list for first 3 years based on public safety priority and other community values
• City Council will approve in March 2009
• Design starts immediately with construction to start in fall 2009
Capital Project Locations
Copia/Hwy 54 (CE1&2)

- Level of Protection
  - 10 yr to 100 yr
- Total Project Cost
  - $850,000 (CE1)
  - $2,000,000 (CE2)
- Number of Properties Improved
  - 442
- Residential Value Improved
  - $14,445,000
- Commercial/Industrial Improved
  - $1,059,000
- Significant Benefits
  - Reduced arterial flooding
  - Reduced property flooding
Central/IH10 (CE4)

- Level of Protection
  - 10 yr to 20 yr (Phase 1)
  - 20 yr to 100 yr (Phase 2)
- Total Cost
  - $4,740,000 (Phase 1)
  - $24,250,000 (Phase 2)
- Number of Properties Improved
  - 1,276
- Residential Value Improved
  - $38,361,000
- Commercial/Industrial Improved
  - $89,657,000
- Significant Benefits
  - Reduced flooding on IH10
  - Reduced arterial flooding
  - Reduced property flooding
Van Buren Dam

- **Level of Protection**
  - Upgraded to TCEQ standards.
- **Total Cost**
  - $2,510,000
- **Number of Properties Improved**
  - 368
- **Residential Value Improved**
  - $26,756,681
- **Commercial/Industrial Improved**
  - $6,074,000
- **Significant Benefits**
  - Upgrade Van Buren Dam to meet TCEQ standards
  - Reduce downstream flooding
Lee Trevino

- Level of Protection
  - 2 yr to 80 yr
- Total Project Cost
  - $5,000,000 (Phase 1a)
- Number of Properties Improved
  - 0
- Residential Value Improved
  - $0
- Commercial/Industrial Improved
  - $0
- Significant Benefits
  - Reduced flooding on Lee Trevino
  - Reduced property flooding
Mission Valley/Americas (MV5)

- Level of Protection
  - 10 yr to 100 yr
- Total Project Cost
  - $6,000,000
- Number of Properties Improved
  - 1,083
- Residential Value Improved
  - $64,846,000
- Commercial/Industrial Improved
  - $111,807,000
- Significant Benefits
  - Initial phase of a project to reduce flooding of large areas in Mission Valley
Mission Valley/Lomaland (MV10)

- Level of Protection
  - 10 yr to 100 yr
- Total Project Cost
  - $4,500,000 ($3,000,000 in CIP yr 1 & $1,500,000 in CIP yr 3)
- Number of Properties Improved
  - 947
- Residential Value Improved
  - $59,855,000
- Commercial/Industrial Improved
  - $39,814,000
- Significant Benefits
  - Reduce property flooding
  - Reduce arterial flooding
  - Potential for linear parks, trails
Electric Street From Fairbanks to Transmountain (Alcan Flooding Mitigation)

- Level of Protection
  - 20 yr to 100 yr
- Total cost
  - $1,000,000
- Number of Properties Improved
  - 507
- Residential Value Improved
  - $89,500,000
- Commercial/Industrial Improved
  - $43,000,000
- Significant Benefits
  - Reduce arterial flooding
  - Reduce property flooding
Doniphan – Mesa to Sunland

- Level of Protection
  - 2 yr to 100 yr
- Total Project Cost
  - $2,510,000
- Number of Properties Improved
  - 439
- Residential Value Improved
  - $36,489,000
- Commercial/Industrial Improved
  - $23,429,000
- Significant Benefits
  - Reduced arterial flooding
  - Reduced property flooding
  - Potential for linear park, trails
Sun Valley to Ft. Bliss Golf Course

- Level of Protection
  - 5 yr to 100 yr
- Total Cost
  - $9,513,000
- Number of Properties Improved
  - 4,180
- Residential Value Improved
  - $316,437,000
- Commercial/Industrial Improved
  - $113,030,000
- Significant Benefits
  - Reduced arterial flooding
  - Reduced property flooding
Doniphan – Sunland to Paisano (NW2)

- Level of Protection
  - 2 yr to 100 yr
- Total Project Cost
  - $5,000,000
- Number of Properties Improved
  - 33
- Residential Value Improved
  - $104,000
- Commercial/Industrial Improved
  - $7,056,000
- Significant Benefits
  - Reduced arterial flooding
  - Reduced property flooding
  - Potential for linear park, trails
  - Reduces maintenance
Protection of Property
Years 1-3

Residential property - $647 million
Commercial property - $435 million

Total Value of Property Affected : $1.1 billion
Project Costs: $67.5 million
Capital Program vs. Flood Risk Improvement
Total $650 million

*Does not include Open Space & Park/Ponds
## Stormwater Open Space Land

<table>
<thead>
<tr>
<th>Location</th>
<th>Acreage</th>
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<tbody>
<tr>
<td>Enchanted Hills Basin</td>
<td>172</td>
</tr>
<tr>
<td>Cloudview Arroyo</td>
<td>18</td>
</tr>
<tr>
<td>Mesa Drain</td>
<td>105</td>
</tr>
<tr>
<td>NE Channel 2</td>
<td>30</td>
</tr>
<tr>
<td>Silver Springs Dam</td>
<td>34</td>
</tr>
<tr>
<td>Mesa Hills Channel</td>
<td>6</td>
</tr>
<tr>
<td>Doniphan Ditch</td>
<td>11</td>
</tr>
<tr>
<td>Featherlake II</td>
<td>23</td>
</tr>
<tr>
<td>Johnson Basin</td>
<td>4</td>
</tr>
<tr>
<td>Franklin Mountains</td>
<td>227</td>
</tr>
<tr>
<td>Westside Master Plan</td>
<td>619</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,249</strong></td>
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## Prioritization Process

### Allocated Funding

<table>
<thead>
<tr>
<th>CIP Year</th>
<th>Major Project Funds</th>
<th>Localized Flooding</th>
<th>Open Space 10% appropriation</th>
<th>Total Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 08-09</td>
<td>0</td>
<td>0</td>
<td>$1.7M</td>
<td>$1.7 M</td>
</tr>
<tr>
<td>FY 09-10</td>
<td>$37.5 M</td>
<td>$1 M</td>
<td>$1.5 M</td>
<td>$40 M</td>
</tr>
<tr>
<td>FY 10-11</td>
<td>$17.5 M</td>
<td>$1 M</td>
<td>$1.5 M</td>
<td>$20 M</td>
</tr>
<tr>
<td>FY 11-12</td>
<td>$12.5 M</td>
<td>$1 M</td>
<td>$1.5 M</td>
<td>$15 M</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$67.5 M</strong></td>
<td><strong>$3 M</strong></td>
<td><strong>$6.2 M</strong></td>
<td><strong>$76.7 M</strong></td>
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</table>
# Capital Project Funding

<table>
<thead>
<tr>
<th>CIP Year</th>
<th>Debt Funding</th>
<th>Cash Funding</th>
<th>Total Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 08-09</td>
<td>0</td>
<td>$1.7 M</td>
<td>$1.7 M</td>
</tr>
<tr>
<td>10% open space funding appropriated</td>
<td>$34 M</td>
<td>$6 M</td>
<td>$40 M</td>
</tr>
<tr>
<td>FY 09-10</td>
<td>$34 M</td>
<td>$6 M</td>
<td>$40 M</td>
</tr>
<tr>
<td>FY 10-11</td>
<td>$13 M</td>
<td>$7 M</td>
<td>$20 M</td>
</tr>
<tr>
<td>FY 11-12</td>
<td>$10.5 M</td>
<td>$4.5 M</td>
<td>$15 M</td>
</tr>
<tr>
<td>Total</td>
<td>$57.5 M</td>
<td>$19.2 M</td>
<td>$76.7 M</td>
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## Stormwater Charge for Residential

<table>
<thead>
<tr>
<th>Residential Category</th>
<th></th>
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<tbody>
<tr>
<td>Small</td>
<td>$1.49</td>
</tr>
<tr>
<td>Typical</td>
<td>$2.97</td>
</tr>
<tr>
<td>Large</td>
<td>$5.94</td>
</tr>
</tbody>
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## Stormwater Charge for Non-Residential

<table>
<thead>
<tr>
<th>Equivalent Residential Area (2,000 sq. ft.)</th>
<th>$3.03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools and Social Svc Nonprofits 10% of fee effective March 1, 2009</td>
<td>$0.30</td>
</tr>
<tr>
<td>Fast Food Restaurant Example 11,123 sq. ft. (approx. ¼ acre)</td>
<td>$16.85/month</td>
</tr>
<tr>
<td>Car Dealership Example 176,068 sq. ft. (approx. 4 acres)</td>
<td>$266.74/month</td>
</tr>
</tbody>
</table>
Public Education
Keep El Paso Beautiful

• Call our Stormwater Environmental Hotline at 1-877-ID-FLOWS (1-877-433-5697) if you see illegal dumping in channels and culverts.