EL PASO WATER UTILITIES PUBLIC SERVICE BOARD
Stormwater

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

EPWU Stormwater Facilities	
Dams	39
Pump stations	16
Detention/Retention ponds	275
Channels	69 miles
Agricultural drains	39 miles
Storm drain conduits	57 miles
Storm drain inlets	5,000

Size of the Challenge

Deferred Maintenance

Size of the Challenge

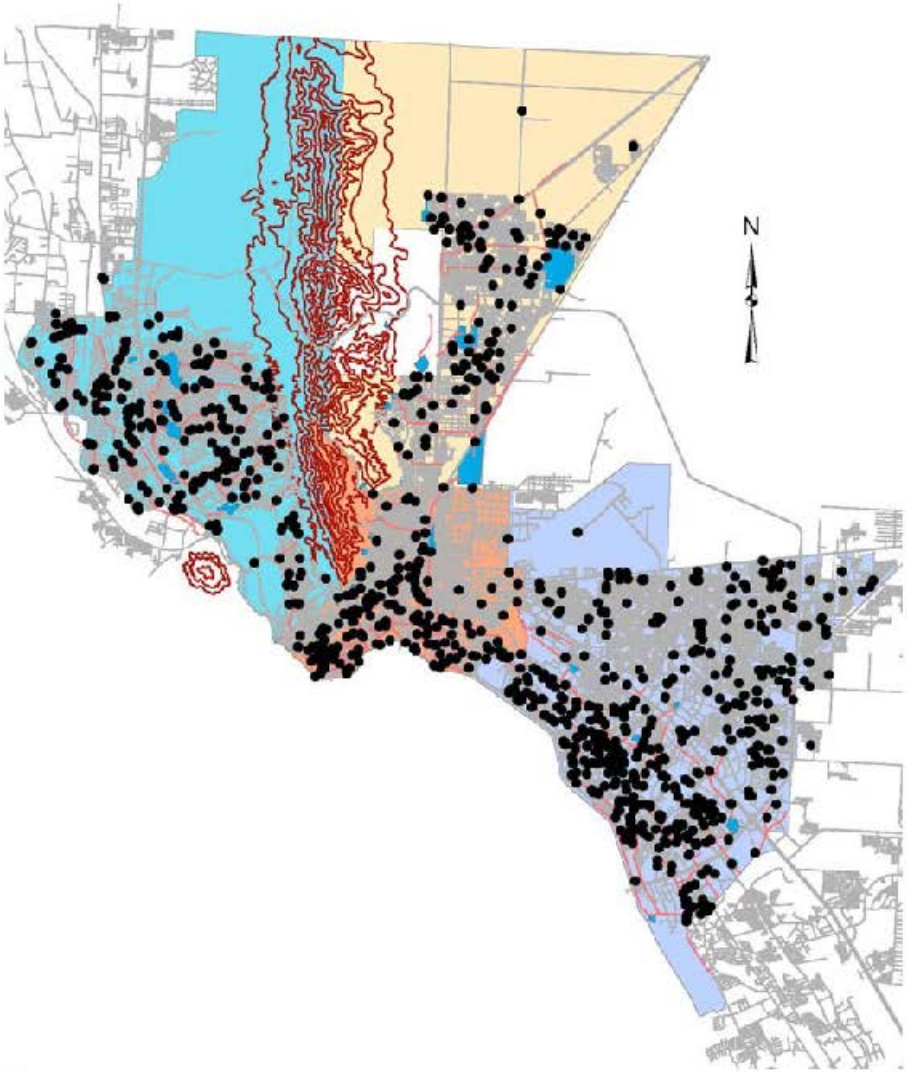
Deferred Maintenance

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)



Signs of Progress

Before: Pershing Dam

Signs of Progress

After: Pershing Dam

The Wet Commute on I-10

Cebada Stormwater Pump Station Improvements Project

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

Signs of Progress

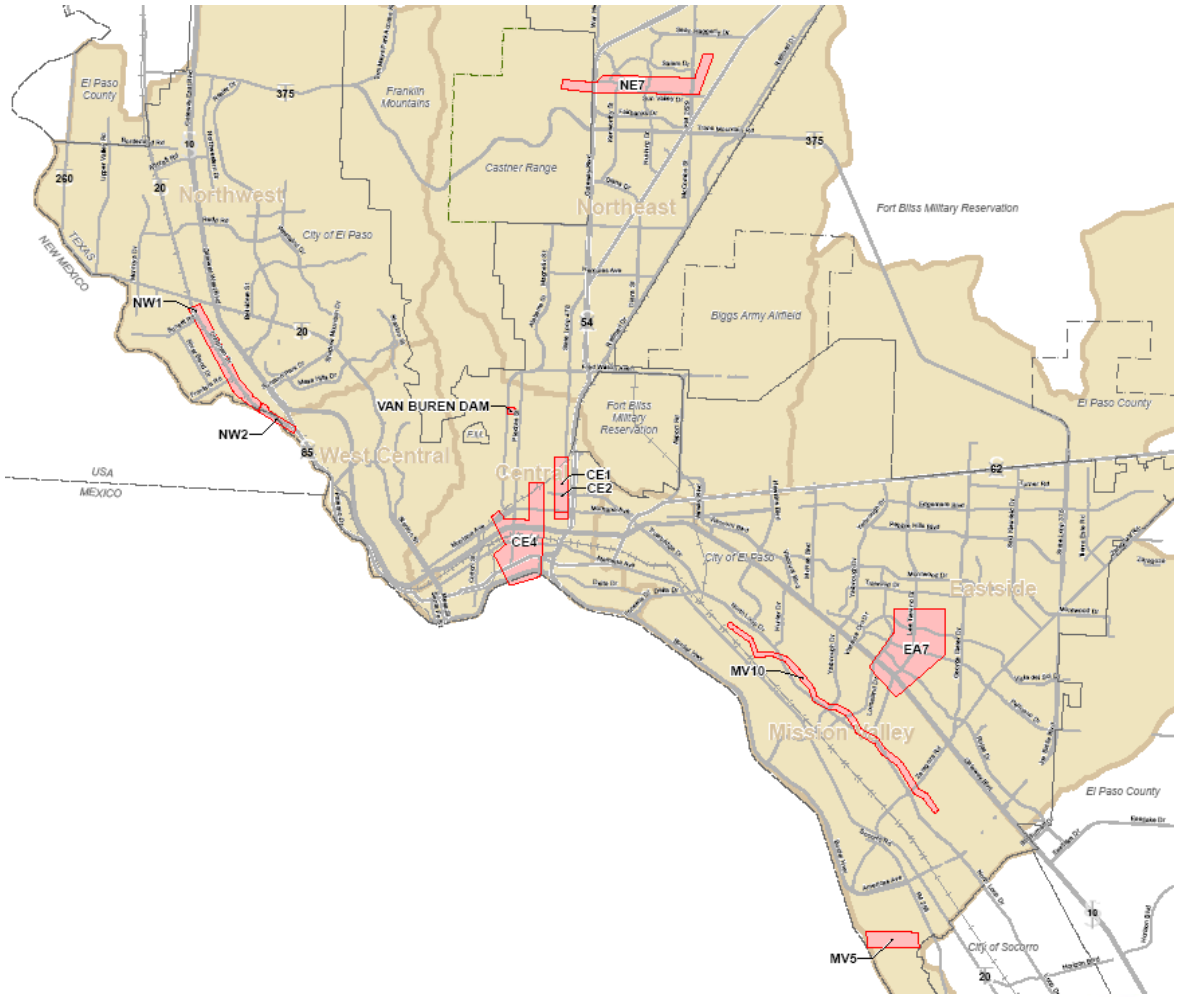
After: Stephanie Basin

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



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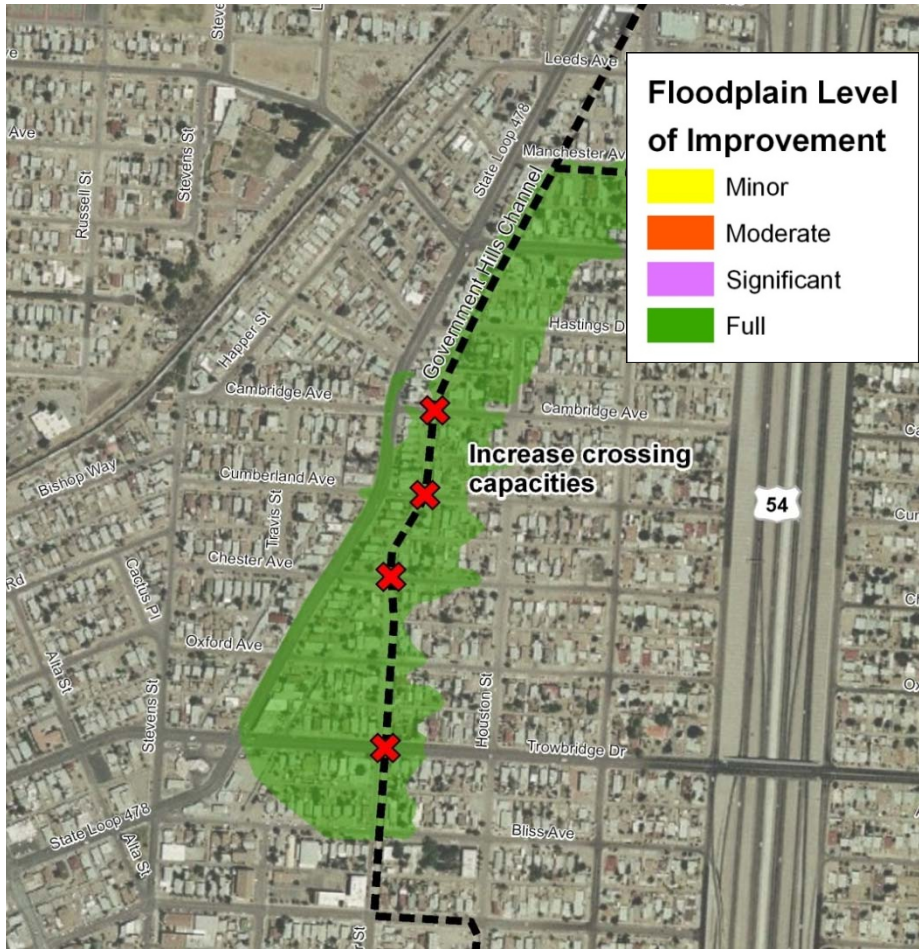
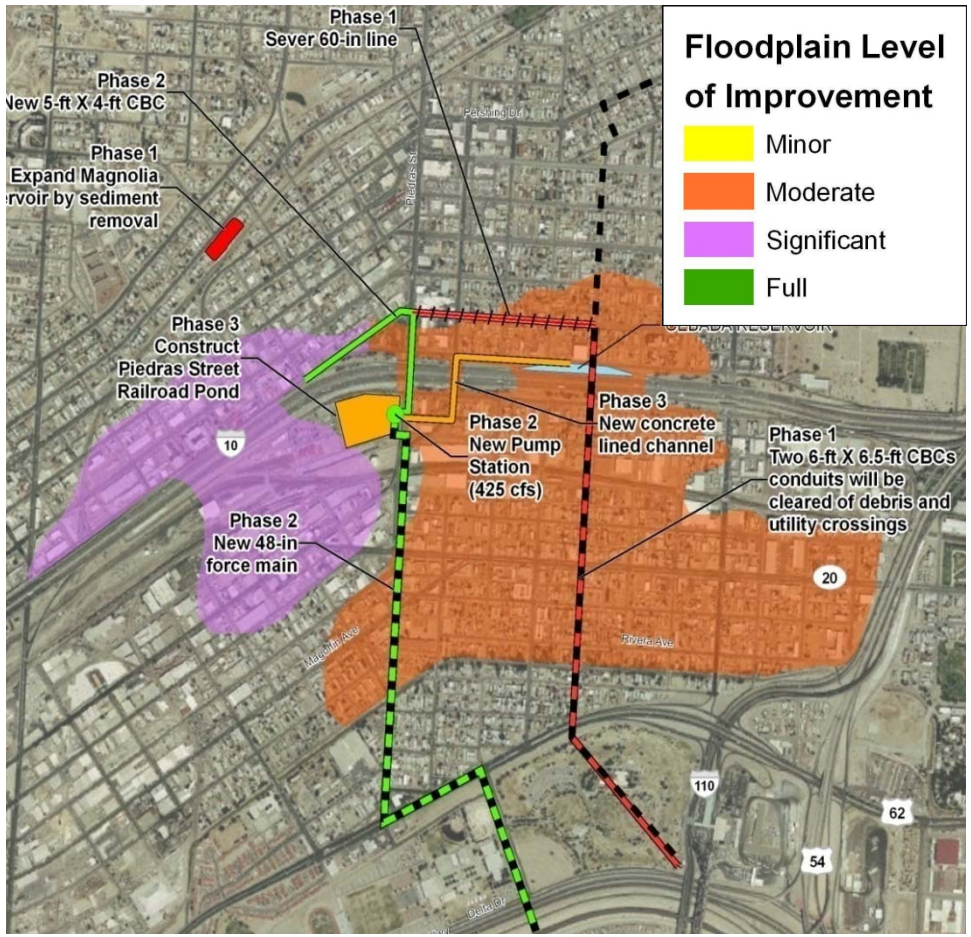
Copia/Hwy 54 (CE1&2)

- 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



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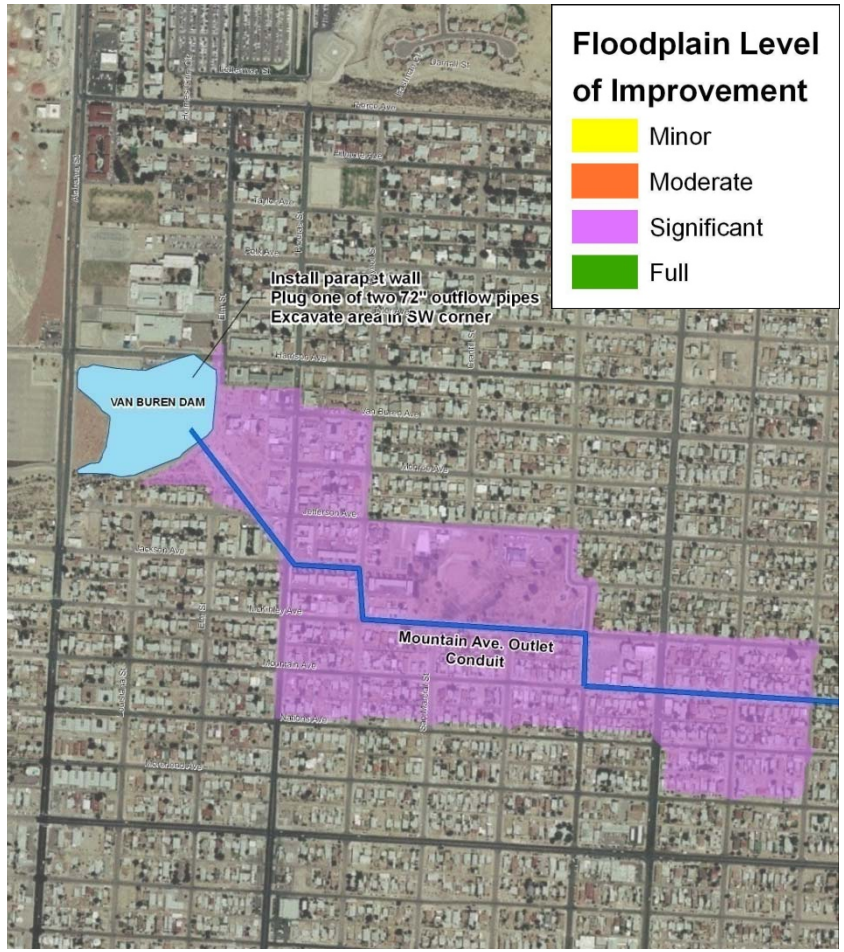
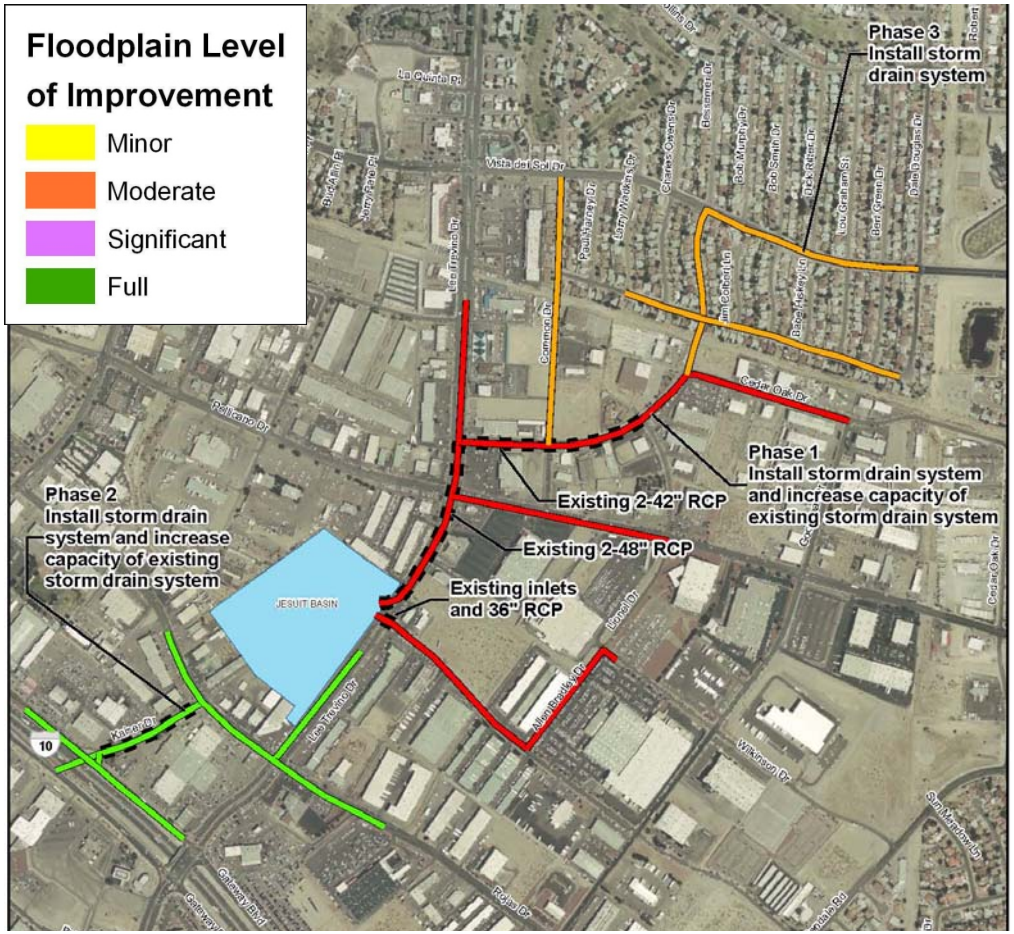
Van Buren Dam

- 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



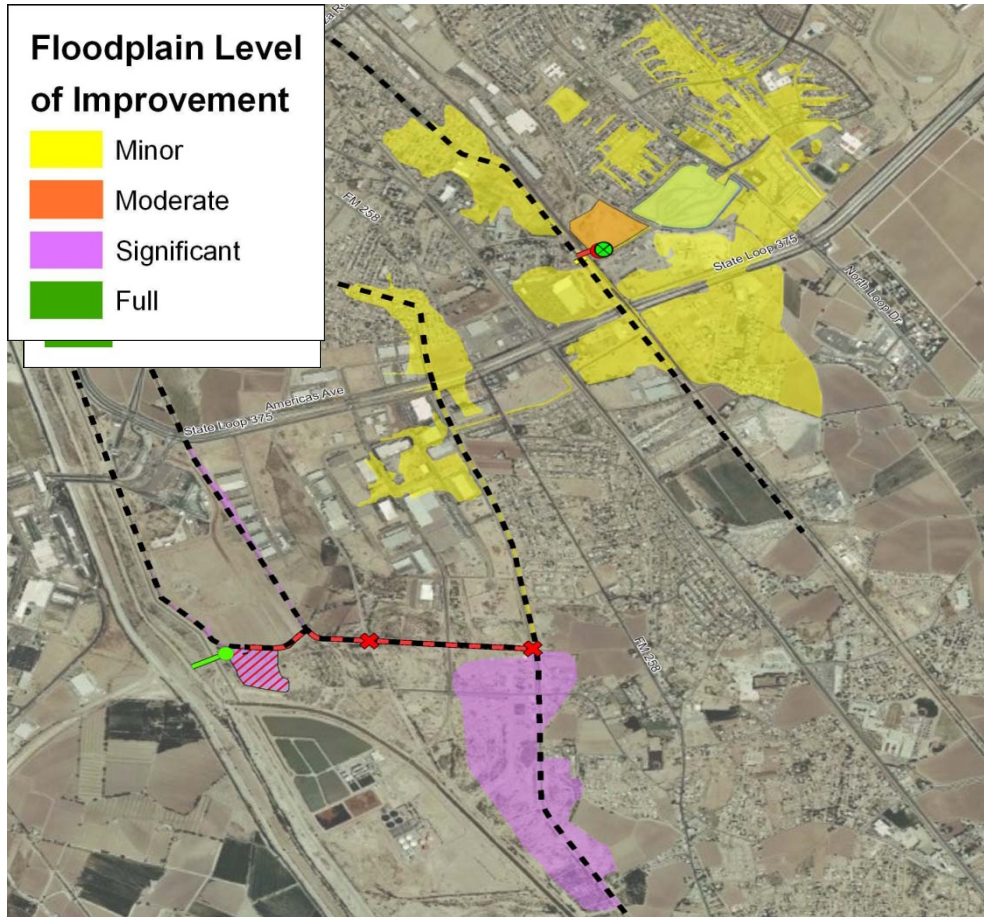
Lee Trevino

- 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



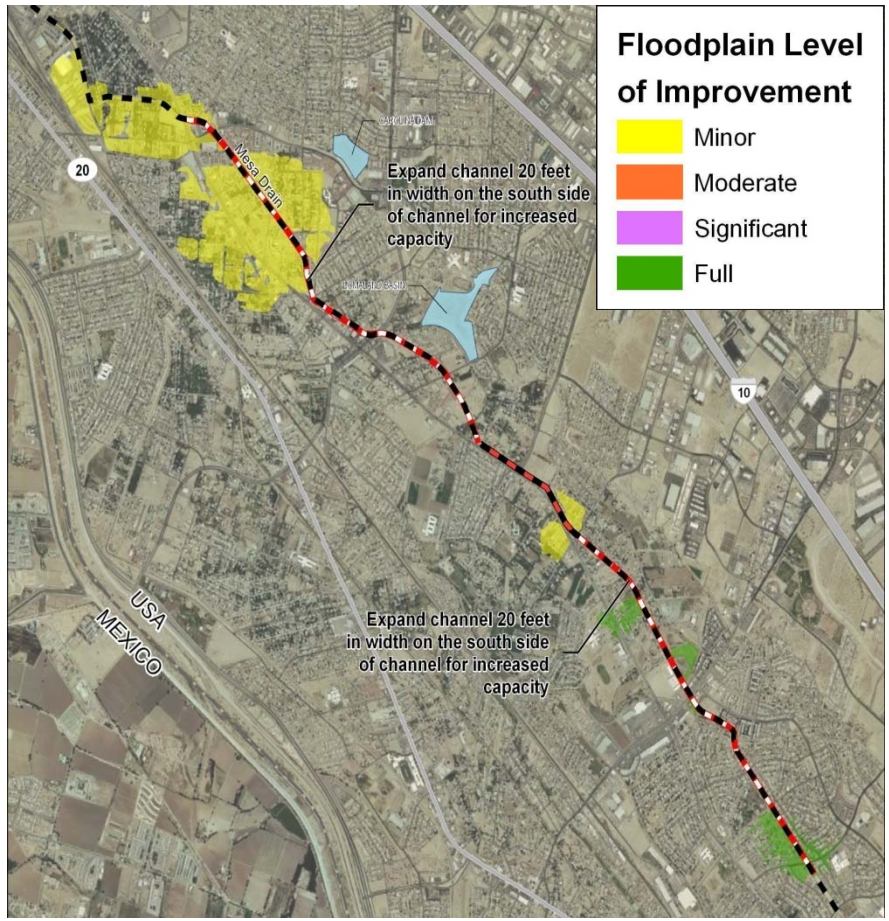
Mission Valley/Americas (MV5)

- 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



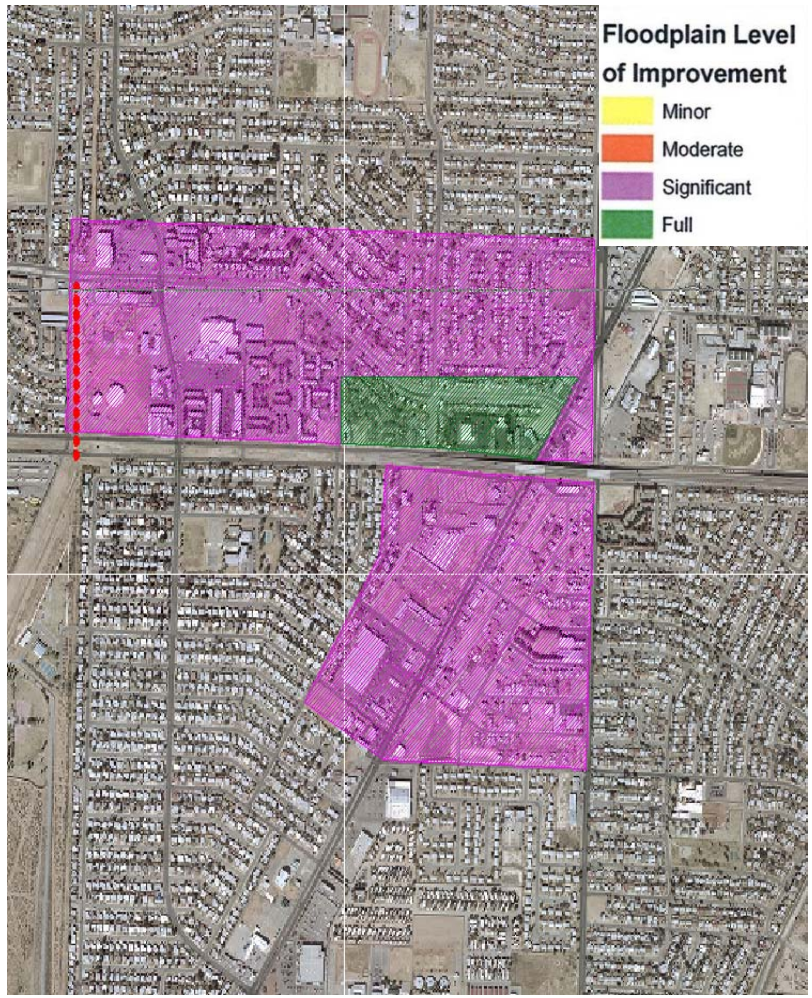
Mission Valley/Lomaland (MV10)

- 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



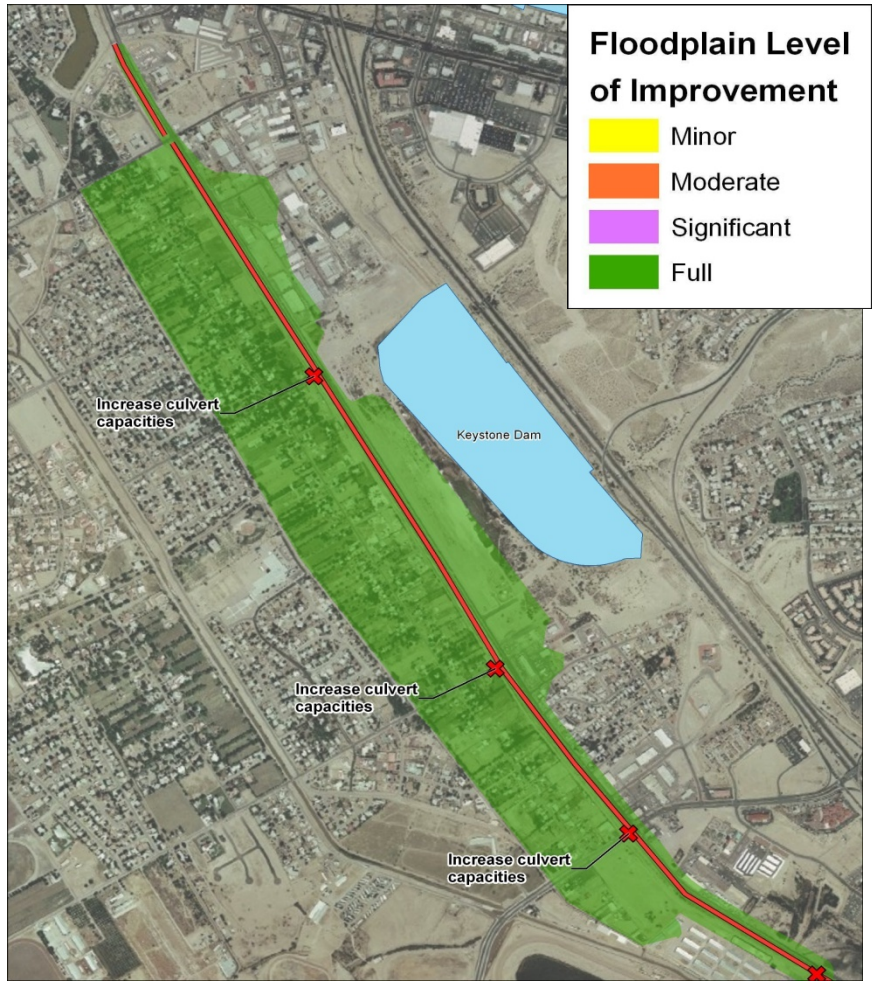
Electric Street From Fairbanks to Transmountain (Alcan Flooding Mitigation)

- 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



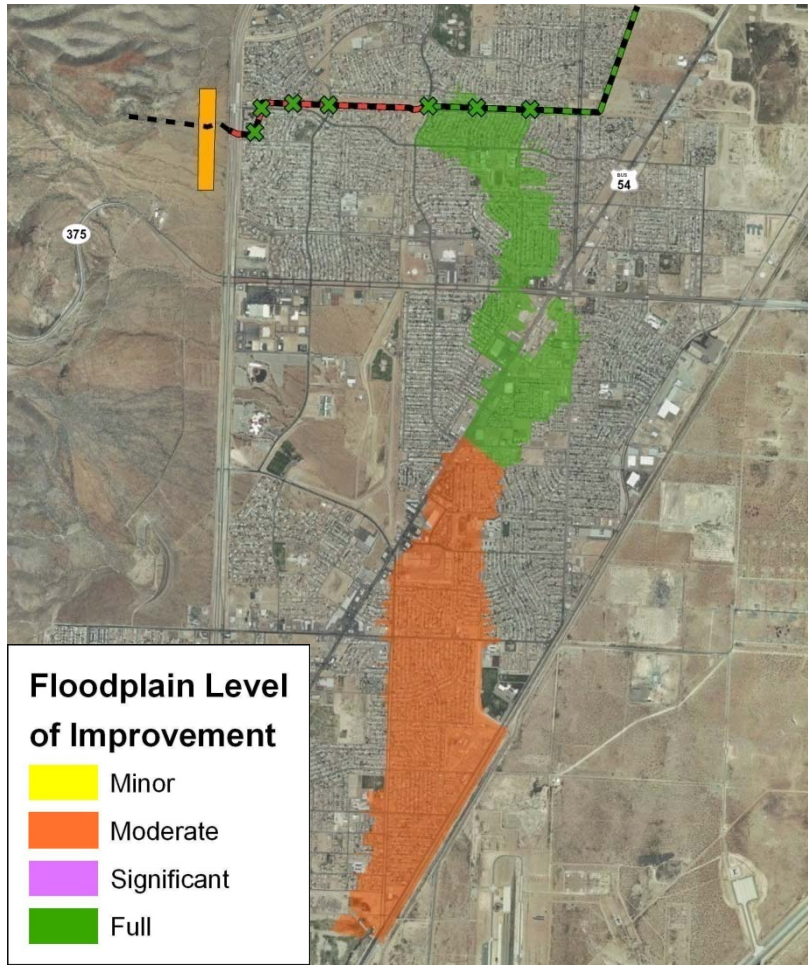
Doniphan – Mesa to Sunland

- 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



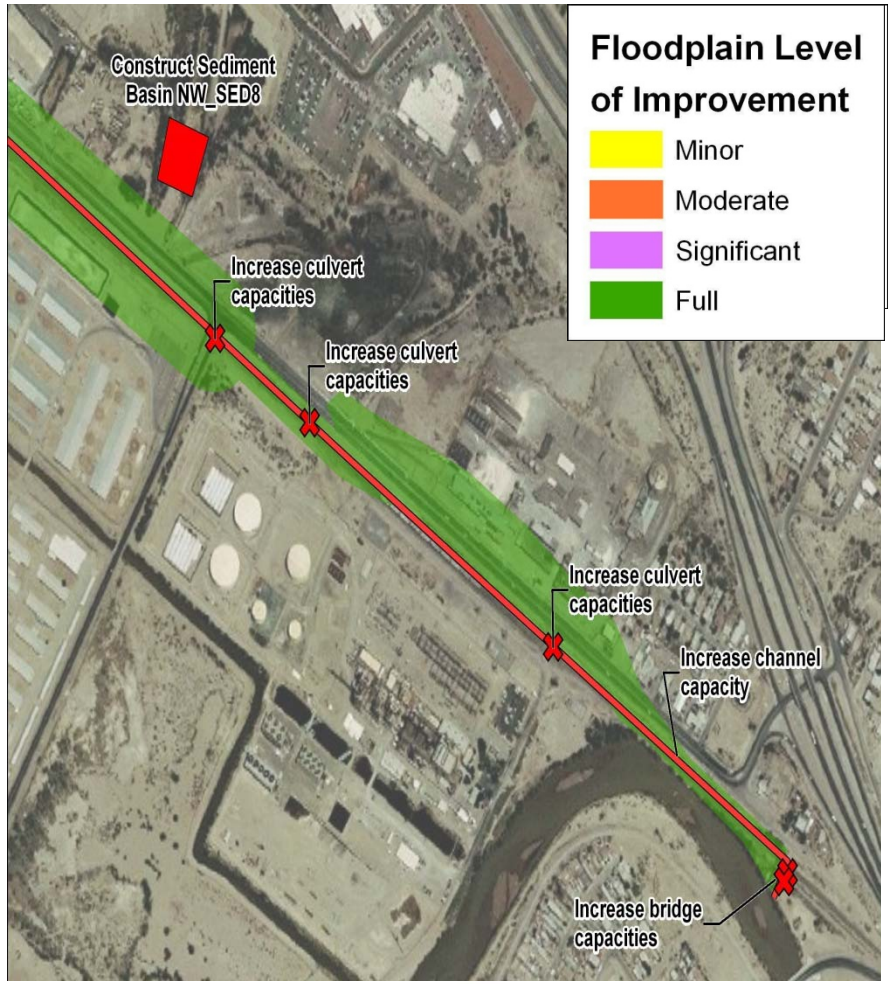
Sun Valley to Ft. Bliss Golf Course

- 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

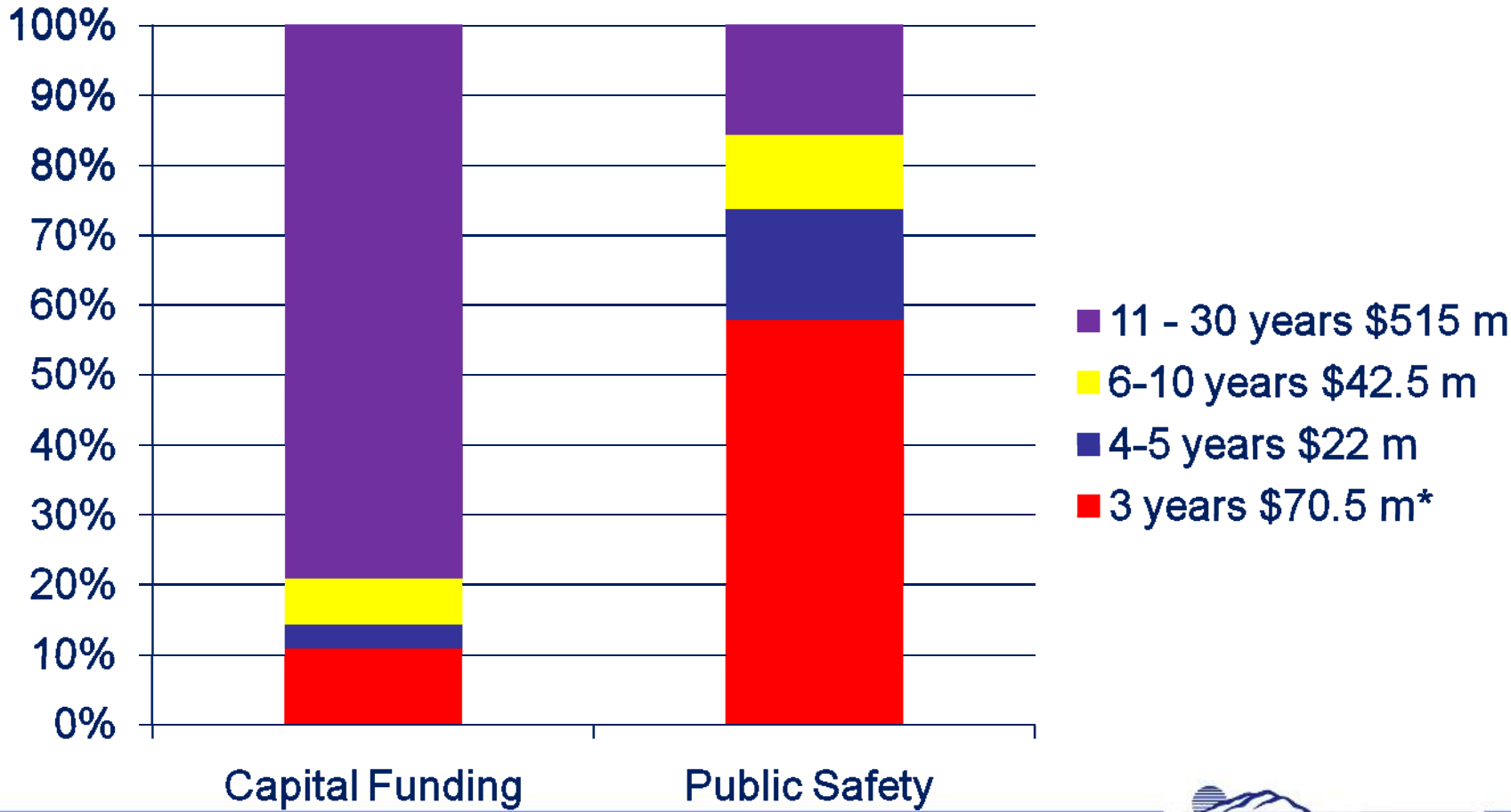
Residential property - $647 million

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

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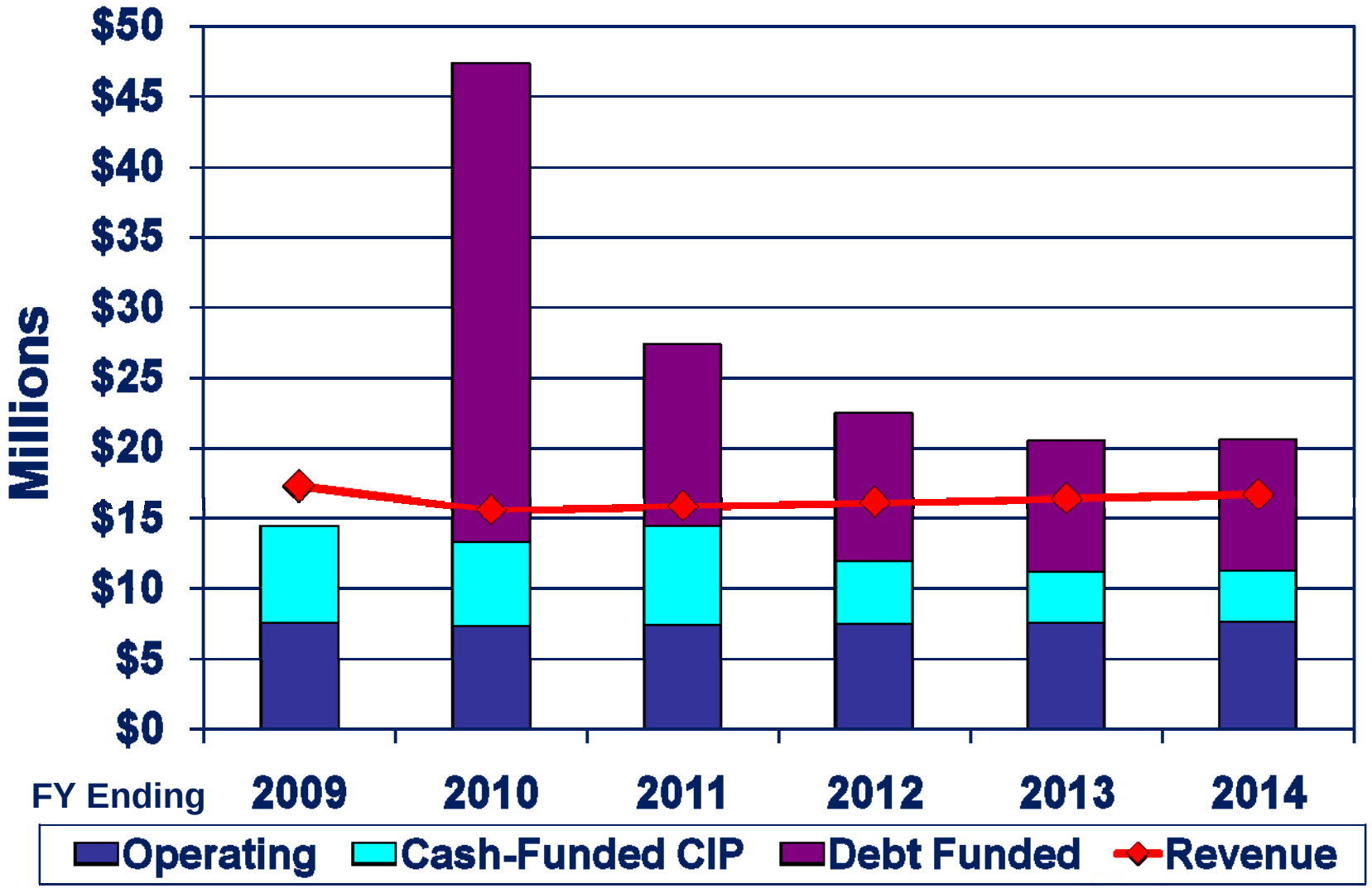
Stormwater Open Space Land

Location	Acreage
Enchanted Hills Basin	172
Cloudview Arroyo	18
Mesa Drain	105
NE Channel 2	30
Silver Springs Dam	34
Mesa Hills Channel	6
Doniphan Ditch	11
Featherlake II	23
Johnson Basin	4
Franklin Mountains	227
Westside Master Plan	619
Total	**1,249**

Projected Revenue Requirements



Prioritization Process

Allocated Funding

CIP Year	Major Project Funds	Localized Flooding	Open Space 10% appropriation	Total Funding
FY 08-09	0	0	$1.7M	$1.7 M
FY 09-10	$37.5 M	$1 M	$1.5 M	$40 M
FY 10-11	$17.5 M	$1 M	$1.5 M	$20 M
FY 11-12	$12.5 M	$1 M	$1.5 M	$15 M
Total	$67.5 M	$3 M	$6.2 M	$76.7 M

Capital Project Funding

CIP Year	Debt Funding	Cash Funding	Total Budget
FY 08-09 10% open space funding appropriated	0	$1.7 M	$1.7 M
FY 09-10	$34 M	$6 M	$40 M
FY 10-11	$13 M	$7 M	$20 M
FY 11-12	$10.5 M	$4.5 M	$15 M
Total	$57.5 M	$19.2 M	$76.7 M

Stormwater Charge for Residential

Residential Category	
Small	$1.49
Typical	$2.97
Large	$5.94

Stormwater Charge for Non-Residential

Equivalent Residential Area (2,000 sq. ft.)	$3.03
Schools and Social Svc Nonprofits 10% of fee effective March 1, 2009	$0.30
Fast Food Restaurant Example 11,123 sq. ft. (approx. ¼ acre)	$16.85/month
Car Dealership Example 176,068 sq. ft. (approx. 4 acres)	$266.74/month

Public Education

Keep El Paso Beautiful

Vehicle fluids are the number one surface water quality problem nationwide

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