New River

1. New River Improvement Project
2. Sewage Bypasses in Mexicali
3. Next steps?
New River Improvement Project

Calexico Phase
2011 Strategic Plan

Key Components
* River Reaches
* Structural Controls
* Non-structural Controls

Today’s focus
New River in Calexico

River Parkway
Recommendations for Calexico

- Trash Screen
- River Parkway
- Calexico WWTP Pump-back system
- Conveyance
- To wetlands, aeration structures
Calexico Project Phases

- **Phase 1**
  - Design of trash screen, culvert, Pump-back system
  - Environmental documentation

- **Phase 2**
  - Construction
Progress

Feb 2016
- CMBRC accepts revised recommendations
  • Formed core workgroup

Apr – Sep 2016
- Costs estimates: design and environmental work
- Initial consultation and coordination
- Pursued various funding sources
- Designated Project Manager

2016-2017 Budget Trailer Bill
- Appropriates $1.4M for Phase 1

Apr 2017 – Prepared scope of work
Sewage Infrastructure in Mexicali

and New River Water Quality
City of Mexicali Planning Areas

City of Mexicali Planning Areas

Zaragoza WWTF

Mexicali I

Mexicali II

Mexicali III

Mexicali IV

Las Arenitas WWTF
The Plan (Treaty Minute 288)

Quick Fixes
- 11 Emergency repairs, including rehab of pumping plants $7.5 M

Mexicali I Projects
- Sewer main rehabilitation (~20 miles) $51 M
- Telemetry, O&M equipment

Mexicali II Projects
- New 20-mgd pumping plant $26 M
- New 20-mgd force main
- New 20-mgd WWTF (Las Arenitas WWTF)
Binational Technical Committee (BTC)
Binational Projects and Emerging Problems

- Quick Fixes ($7.5M)
- Mexicali I Projects ($51M)
- Mexicali II Projects ($26M)
- BTC meetings, “Observation Tours”
- Expansion of Las Arenitas (on-going)
- Emerging Problems
Regulatory Efforts

- Zaragoza WWTF
- Slaughterhouse
- Power Plants
- International Drain
- New River Encasement
- Laguna Xochimilco
- New River
- Mexicali Drain
- Tula West Drain
- Slaughterhouses

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## Key Sewage Infrastructure

<table>
<thead>
<tr>
<th>Key Sewage Infrastructure</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Major Pumping Plants</td>
<td>12</td>
</tr>
<tr>
<td>Lift Stations</td>
<td>27</td>
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<tr>
<td>Sewage collectors</td>
<td>800 Km</td>
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<tr>
<td>Wastewater Treatment Plants</td>
<td>2</td>
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<tr>
<td>Sewer Vac Trucks</td>
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</tbody>
</table>
Emerging problems

2013
- Pumping Plant problems
- Sewage collectors
- Operation and maintenance equipment
  - Threatened bypasses of raw sewage into New River

2014
- 3 bypasses of raw sewage into New River
- Brought problems to IBWC’s and USEPA’s attention
Emerging Problems (cont’d)

2015
- Policy meeting with USEPA, US IBWC, IID, County, State
  - Feds funded study to better characterize problems
- 3 bypasses of raw sewage
- Mexico rebuilds PP3

2016
- More bypasses of raw sewage
- Study completed and draft report released to BTC
  - Key infrastructure at or beyond its useful life
  - O&M needs
  - Cost to address problems $75M-$80M
# Equipment to Prevent Bypasses

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
<th>Price/ Unit</th>
<th>Total</th>
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<tbody>
<tr>
<td>4-inch Trash Pump</td>
<td>2</td>
<td>$35,000</td>
<td>$70,000</td>
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<tr>
<td>6-inch Trash Pump</td>
<td>3</td>
<td>$45,000</td>
<td>$90,000</td>
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<td>8-inch Trash Pump</td>
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<tr>
<td>12-inch Trash Pump</td>
<td>1</td>
<td>$175,000</td>
<td>$175,000</td>
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<tr>
<td>Inflatable Plugs, connections, and hoses [to deal with broken pipes]</td>
<td>1</td>
<td>$50,000</td>
<td>$50,000</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$485,000</strong></td>
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</table>
## Assets Needed to Protect System

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
<th>Price/ Unit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer Vac Truck</td>
<td>1</td>
<td>$350,000</td>
<td>$350,000</td>
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<tr>
<td>Power Bucket Machine</td>
<td>2</td>
<td>$100,000</td>
<td>$200,000</td>
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</tbody>
</table>

**Total** | **$550,000**
Alternate Outlook

- Bypasses of raw sewage
  - 5 to 20 mgd from Mexicali I and III areas (Zaragoza WWTF)
  - 20 mgd from Mexicali II and IV areas (Las Arenitas WWTF)

- Increased pathogens in New River
  - Threat to public health

- Increase nutrients into Salton Sea

- Loss of water quality improvements
Questions/Comments?