

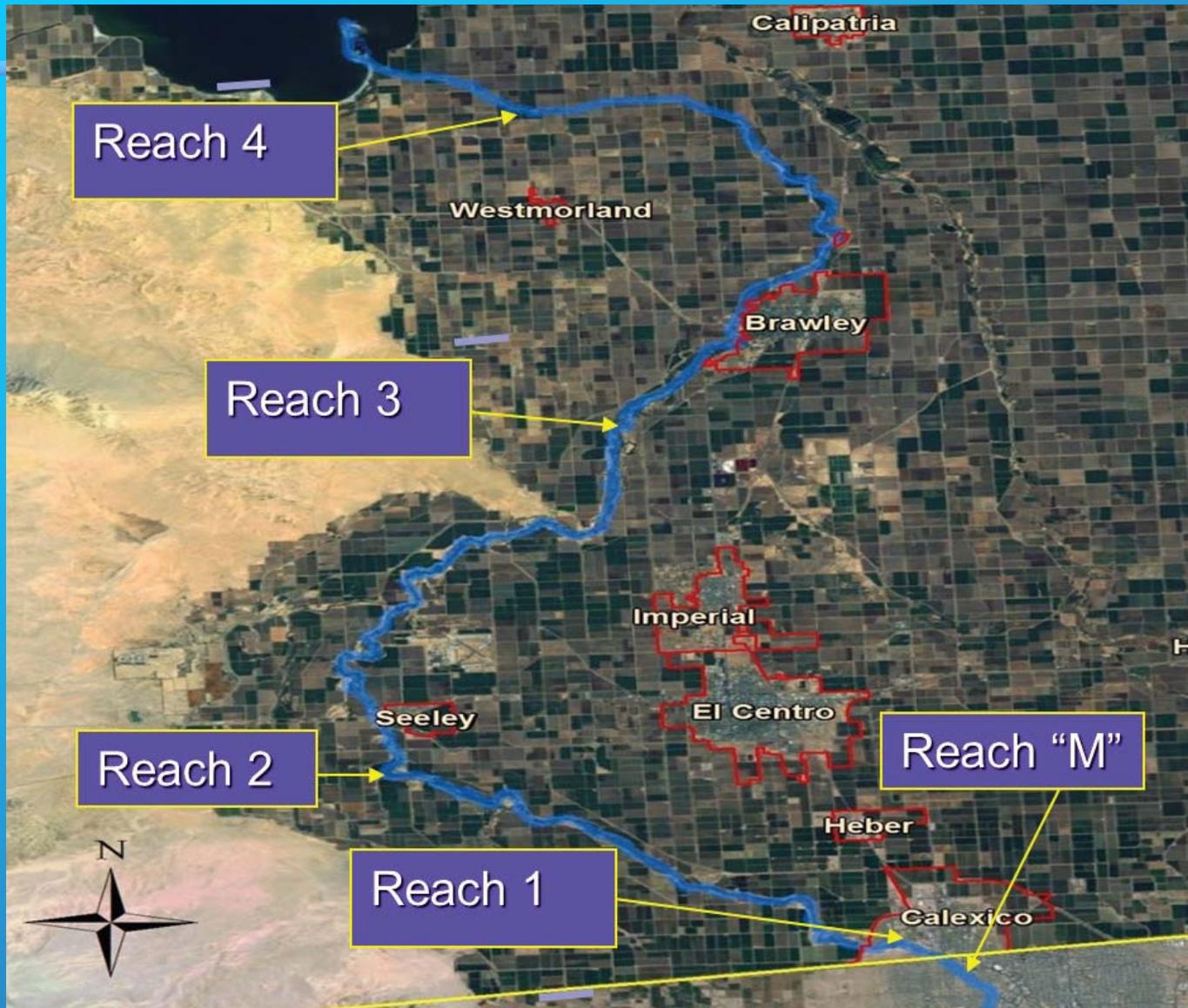
New River Cleanup

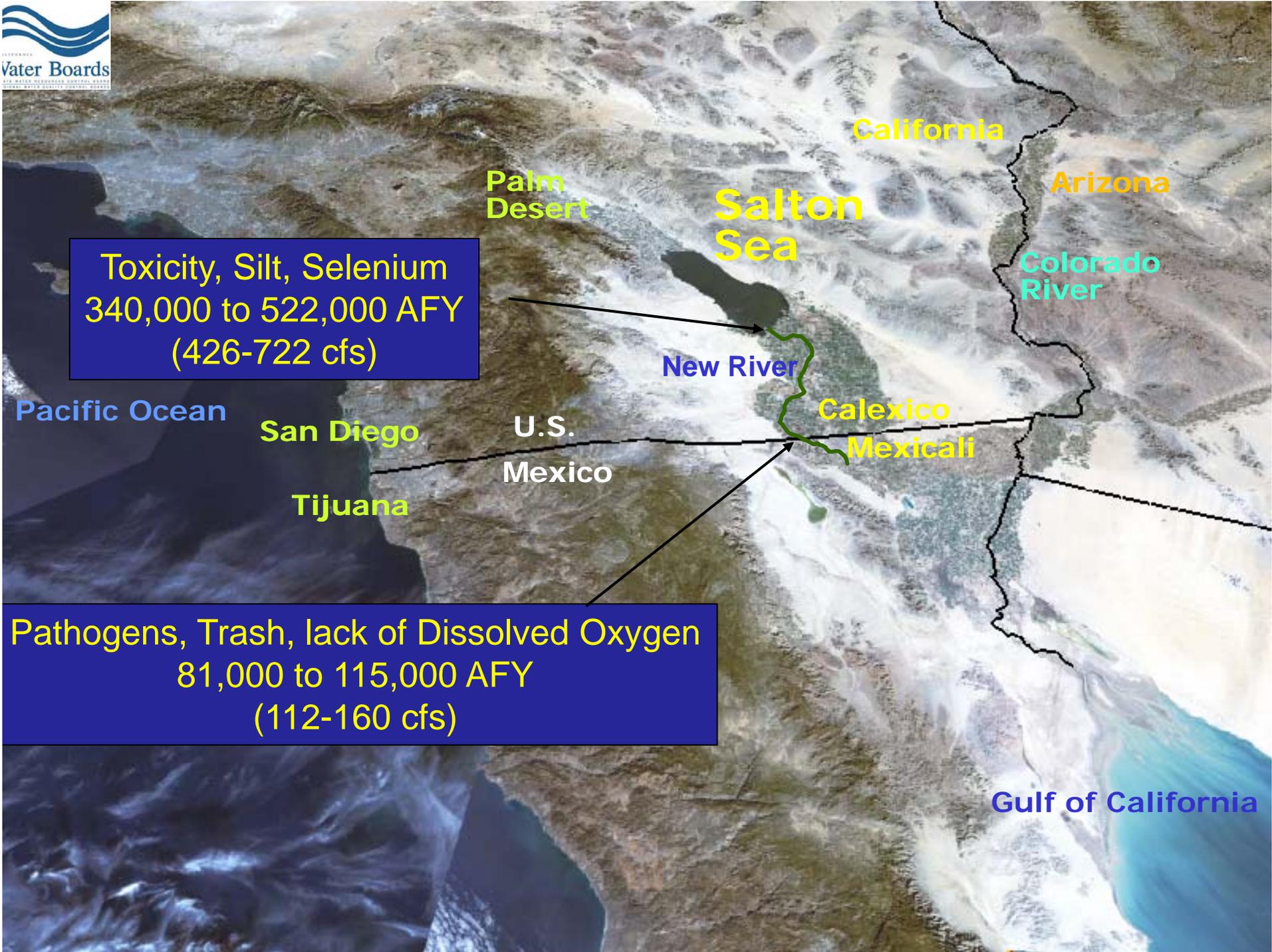
Progress & Emerging Threats

New River Pollution

- Background
 - Overview of New River Reaches
 - Reaches water quality
- Restoration challenges
 - Agricultural river reaches
 - Calexico river reach
 - Mexicali

New River Reaches





Toxicity, Silt, Selenium
340,000 to 522,000 AFY
(426-722 cfs)

Pathogens, Trash, lack of Dissolved Oxygen
81,000 to 115,000 AFY
(112-160 cfs)

Reaches Downstream from Calexico

Programs and Efforts Underway

- Control for all point sources of pollution
 - Wastewater Treatment Plants
 - Feedlots, industrial discharges
 - Storm water runoff
- Control Programs for agricultural runoff
 - Total Maximum Daily Loads
 - New Conditional Waiver for agricultural discharges of wastes (1/2015)

Ag Waiver at a Glance

- Farmers
 - Prepare and submit Water Quality Improvement Plans
 - Implement management practices (MPs)
- IID
 - Must implement Drain Water Quality Improvement Plan
 - Monitor surface waters
- IID-ICFB Co-Leads to implement Waiver

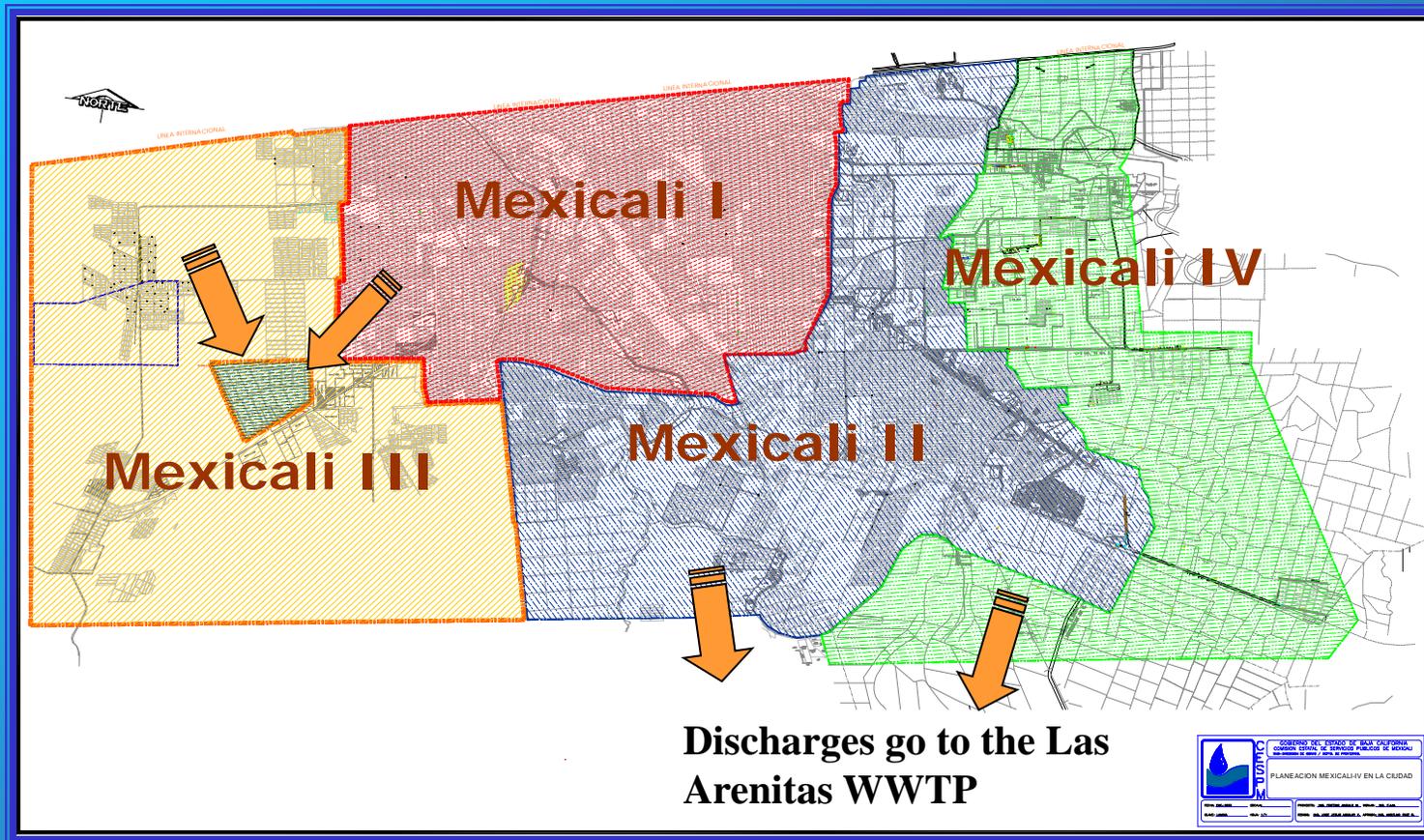
Other Cleanup Projects

- Constructed wetlands
 - Brawley site
 - Imperial site
 - Wildcat site
 - Another 8 potential sites
- Aeration structures

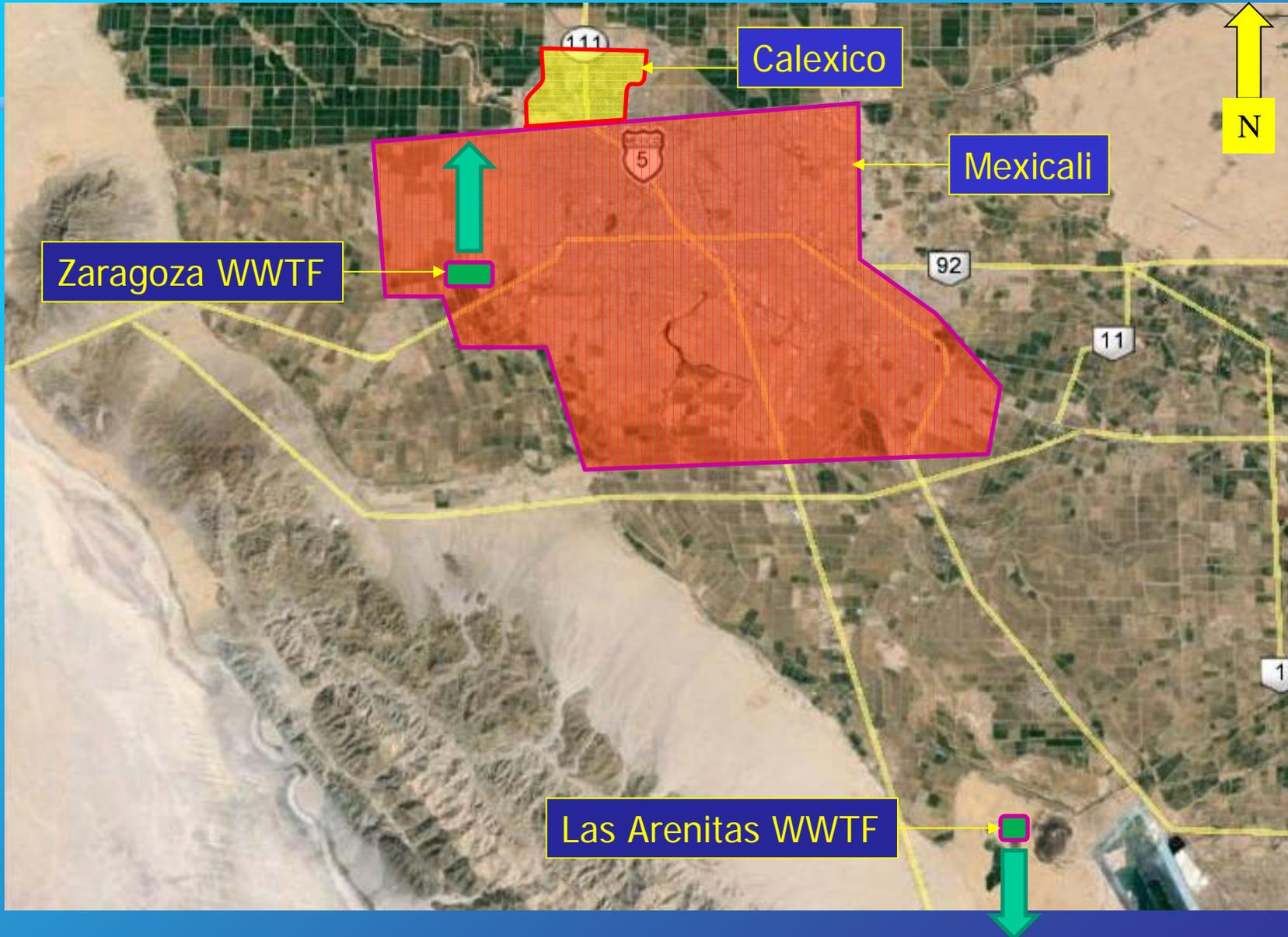


Challenges in Mexicali

City of Mexicali Planning Areas

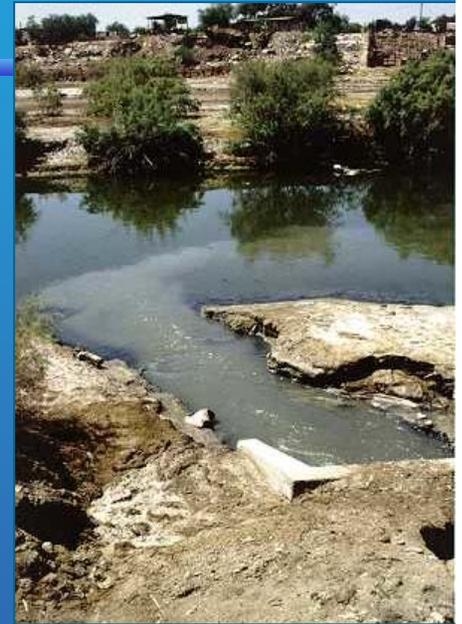


Discharges go to the Las Arenitas WWTP

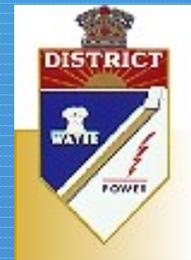


Pre-binational Projects (late 90s)

- Raw sewage
- Partially treated wastewater
- Untreated Industrial discharges
- Trash



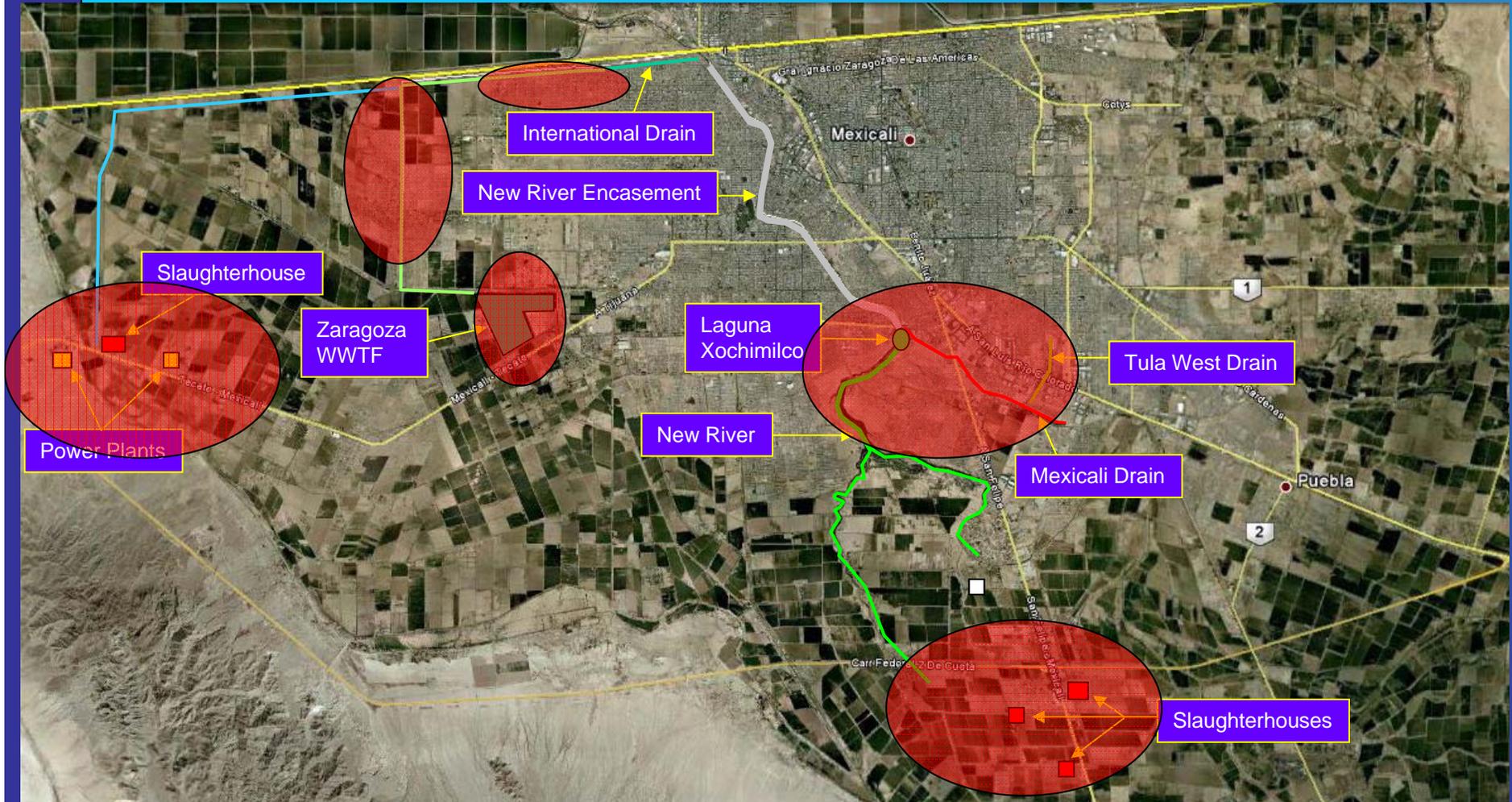
Binational Technical Committee (BTC)



New River at the Border

Issue	Pre-Binational Projects (2007) (up to 20 mgd of raw sewage)	Post-Binational Projects (no raw sewage)
Fecal, E. Coli	> 1,000,000 MPN/100 ml	~ 8,000 – 60,000
Dissolved Oxygen	< 1.0 mg/L	~ 3—5 mg/L
Trash	> 150 cu yds/year	> 150 cu yds/year
Selenium	< 5 ppb	> 5 ppb
Nutrients (PO4)	40% of Load to Salton Sea	20% of Load to Salton Sea
Toxicity	Detected	Still a problem
VOCs	Some detected	Non-detect
Average Flow	~ 120 mgd	~ 80 mgd

Regulatory Efforts



Emerging Threats

- Treatment capacity
- Pumping plants
- Sewage collection system
- Other

Flow at WWTFs (mgd)

	Zaragoza	Las Arenitas
Jan-14	16.43	18.69
Feb-14	17.57	18.83
Mar-14	17.46	19.06
Apr-14	17.07	18.97
May-14	15.68	19.38
Jun-14	14.93	19.90
Jul-14	13.63	20.20
Aug-14	16.18	20.93
Sep-14	19.04	20.25
Oct-14	19.13	20.15
Nov-14	19.31	19.49
Dec-14	18.44	19.04
Mean	17.07	19.57

	Zaragoza	Las Arenitas
Jan-15	18.99	18.40
Feb-15	18.90	18.83
Mar-15	16.78	19.22
Apr-15	16.37	19.06
Mean	17.76	18.88

Las Arenitas Capacity = 19.2 mgd
 Zaragoza Capacity = ~ 22 mgd

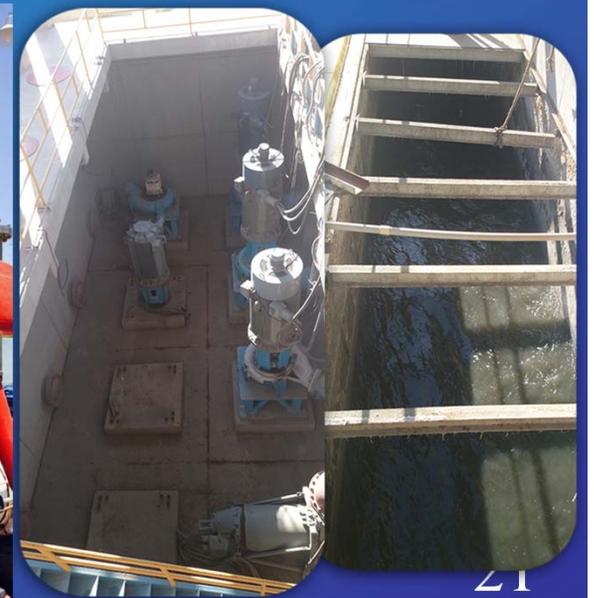
Wastewater Treatment Plants

- Structural damage
- Hydraulic problems
- Treatment Capacity
 - Flows at Las Arenitas
 - Aeration at Zargoza



Pumping Plants, Lift Stations

- Structural problems
- Equipment problems



Collapsed Collection System

- Replaced collapsed collectors
- Fixed collection system



O&M Equipment

- Down to one Sewer Vac truck



2014 Investments

WWTFs	Zaragoza WWTFs	Aeration
		\$888,755
Pumping Plants	Pumping Plant No. 2	Upper Pumps
		\$212,815
	Pumping Plant No. 3	Pumps
		\$581,781
Sewage Collection System	Replacement	\$1,599,876
Sewage Collection System	Repairs	\$575,034
	TOTAL INVESTMENT	\$3,858,261

Bypass Prevention at PP 3



2015 Investments

WWTF	A/Cs	\$8,500
Pumping Plants	Pumping Plant No. 3	Bypass Prevention
		\$192,445
	Pumping Plant No. 4	Rehabilitation
		\$670,820
Lift Stations	Noreste	O2 Improvement
		\$67,000
		Rehabilitation
		\$1,583,260
	TOTAL INVESTMENT	\$2,522,030

2015 Projects

WWTFs	Zaragoza WWTF	Valves \$8,805
	Las Arenitas WWTF	Project \$250,000
Pumping Plants	PP No. 1	Rehabilitation \$1,678,571
	PP No. 4	Air Purging \$19,241
	PP No. 5	Manifolds and Other \$78,570
Lift Stations	Right Side	Rehabilitation \$964,285
O&M of Sewage Collection System	O&M Equipment	Vac Truck, Survey Equip. \$785,715
		Total \$3,785,188

Projected 2016 Investment

WWTF	Zaragoza WWTF	Work & Pretreatment \$2,138,155
	Las Arenitas WWTF	Expansion \$10,007,143
Pumping Plants	PP 2, 4, 5	\$1,621,008
Lift Stations	10 Lift Stations	\$1,621,430
Telemetry	Lift Station and Pumping Plants	\$1,142,857
Sewage Collection System	New Lines	\$2,671,429
	Rehabs	\$1,276,552
Sewage Collection System	Repairs of Collpases	\$254,252
	Repairs of Collpases	\$1,541,429
O&M of Sewage Collection System	New Equipment	\$5,642,857.14
	TOTAL	\$27,917,110.13

Short-term Outlook

- Unforeseen collapses
 - Raw sewage into New River
- BTC focus
 - Prevention of bypasses
 - Oversight of critical repairs/rehab projects
 - Expansion of Las Arenitas

Calexico

Main Challenges in Calexico



1. Owner/operator
2. Funding
3. Lack of Urgency