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New River Pollution from Mexico

Update



California Regional Water Quality Control Board- Colorado River Basin

Jose L. Angel, Assistant Executive Officer, P.E.

New River at Calexico (Before Las Arenitas)



Total (Avg) = 150-200 cfs

Municipal WWTFs Flow	20 %
Direct Industrial	7.5 %
Agricultural discharges	65 %
Other	3.5 %

**About 15 MGD
of raw sewage**

Sources of Pollution

- Municipal sewage
- Industrial wastes
- Solid wastes
- Ag, stormwater, urban runoffs

Raw sewage spills, bypasses



Treatment Lagoons Problems



- Undisinfected
- High in nutrients
- High TSS

Industrial wastes



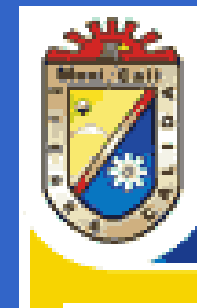
Livestock Waste



Dumping



Binational Technical Committee



The Plan (Treaty Minute 294)

■ Quick Fixes

- 11 Emergency repairs

\$7.5 M

■ Mexicali I Projects

- Sewer main rehabilitation (~20 miles)
- Telemetry equipment
- Expected completion by 2004

\$51 M

■ Mexicali II Projects

- New 20-mgd pumping plant
- New 20-mgd force main
- New 20-mgd treatment plant

\$26 M

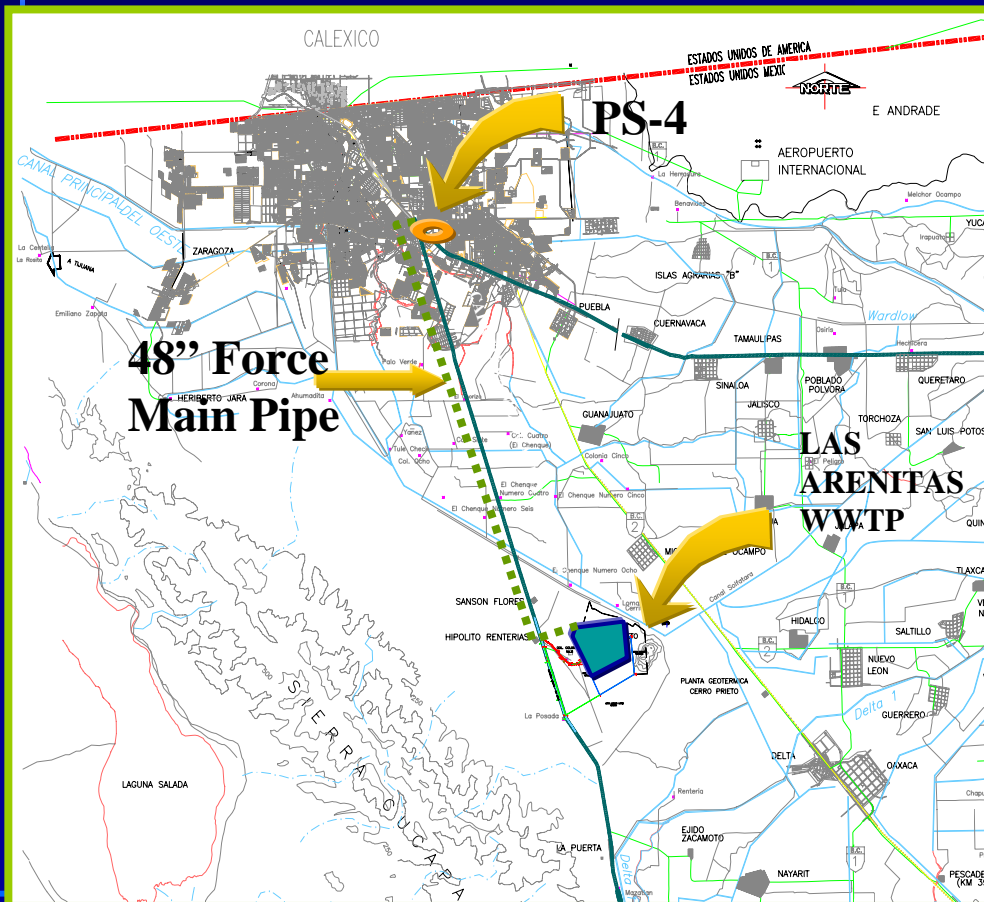
New River at Calexico (2005)

Constituents of Concern	
Fecal, E. Coli	> 1,000,000
Dissolved Oxygen	< 1.0 mg/L
Nutrients (PO4)	40% of Load to Salton Sea
VOCs	Some detected
Trash	> 150 cu yds/year

Avg Flow ~120 MGD

Update of Binational Efforts in Mexico

Mexicali II Project



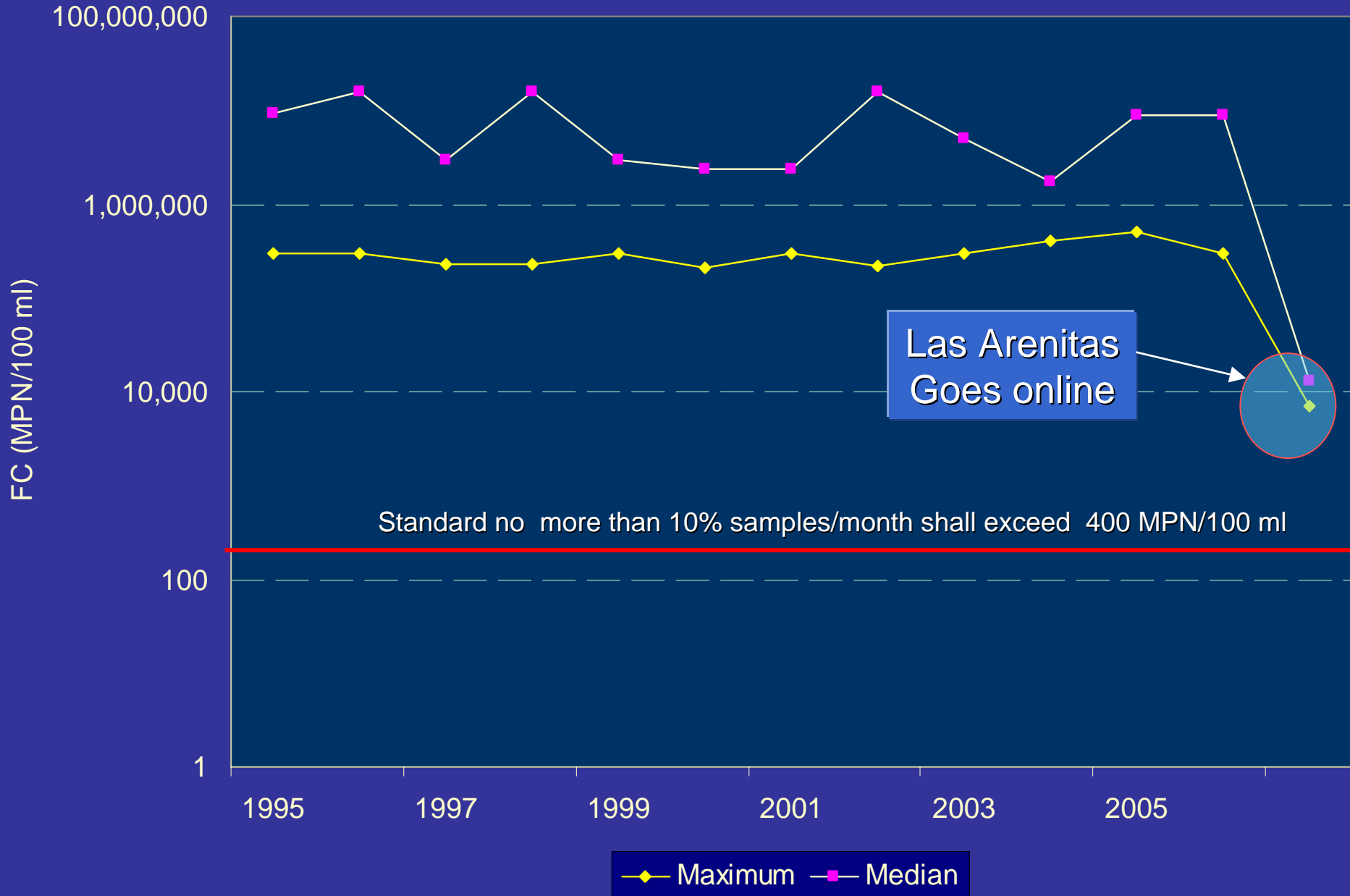
Cost Estimate	Millions of USD
Installation of force main pipe - Phase 1 (9 Km)	1.1
Purchase and install force main pipe – Phase 2 (17 km)	10.0
Upgrade Pump Station 4	3.0
Las Arenitas WWTW	11.8
	\$ 25.9



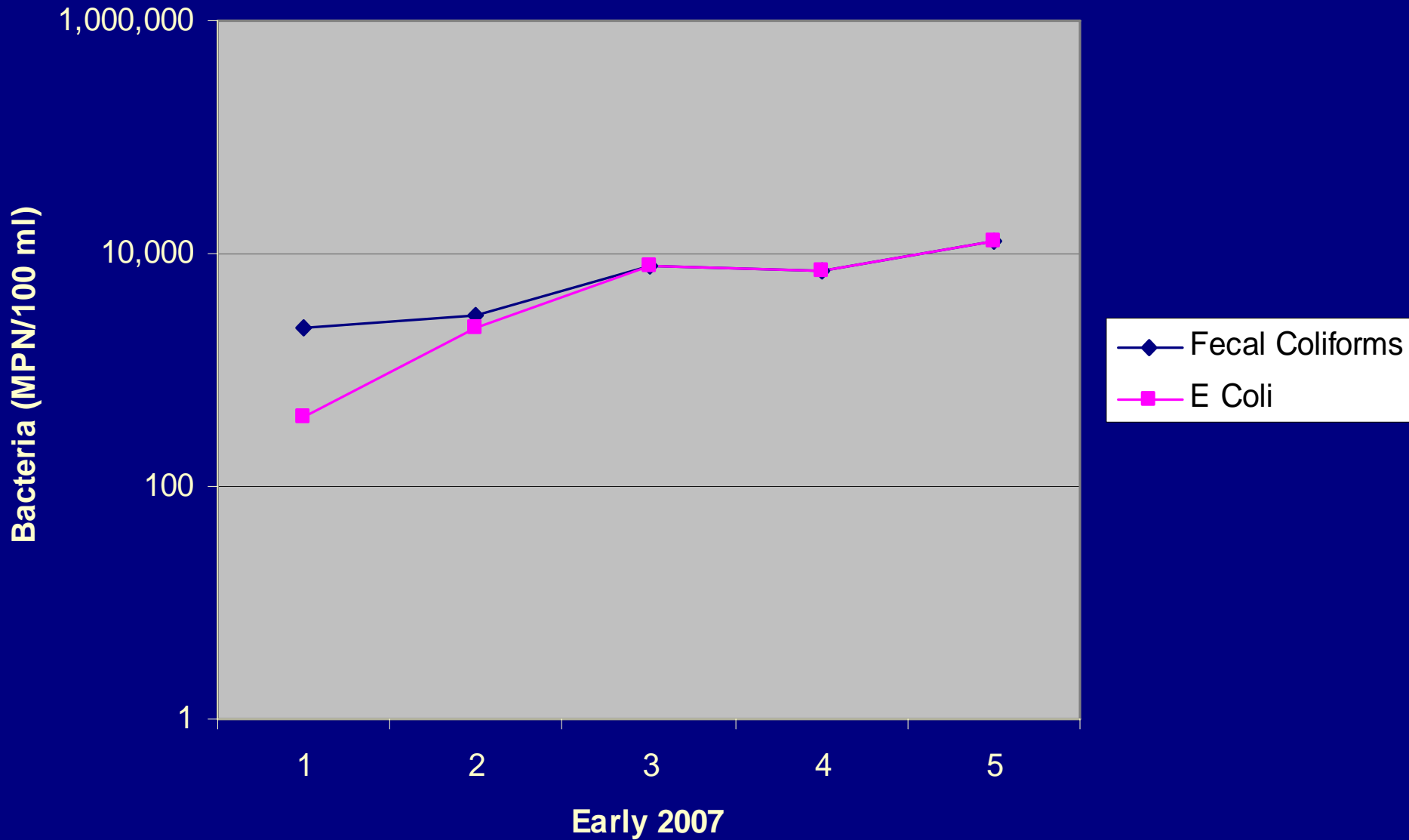
Mexicali II Wastewater Plant



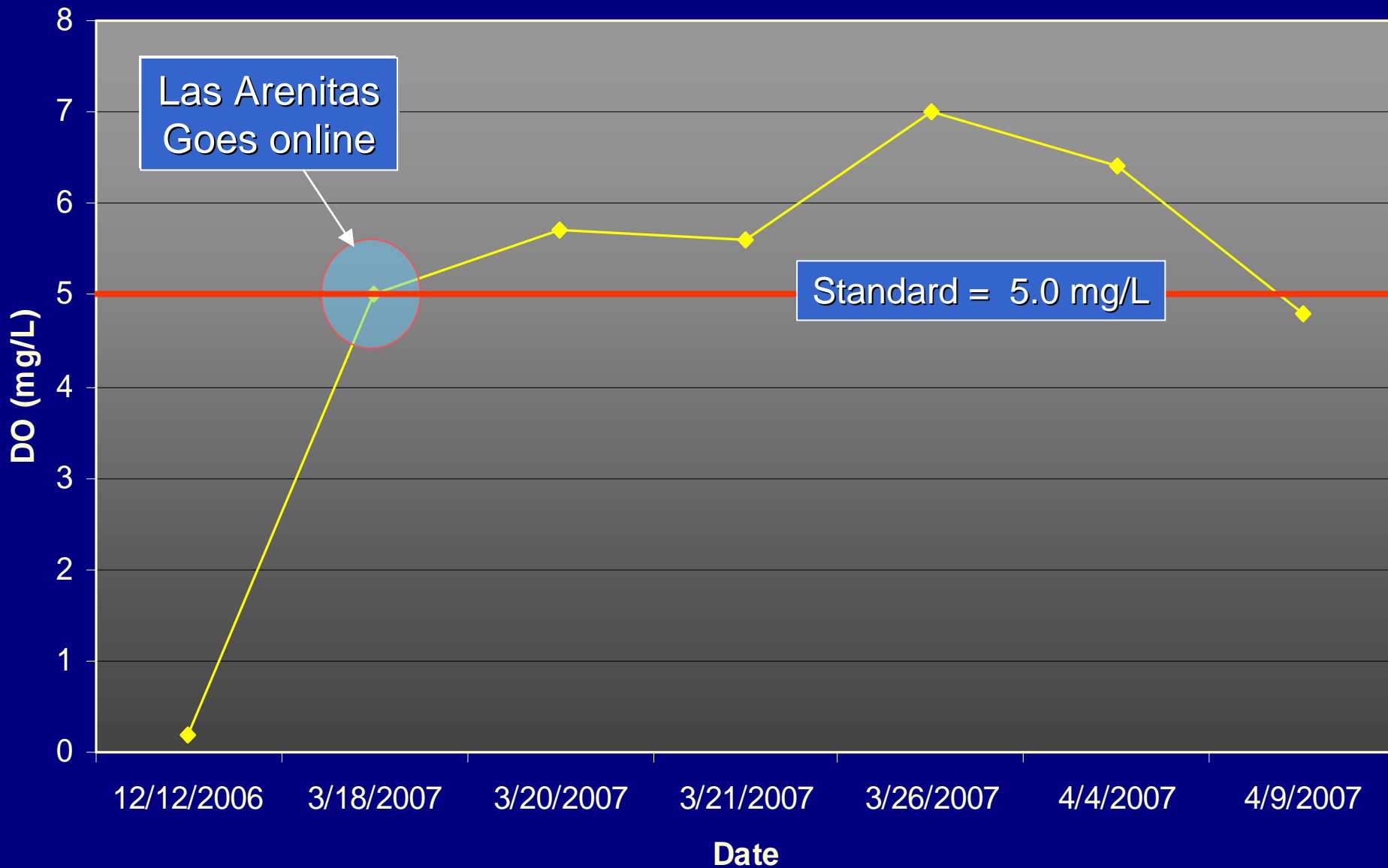
New River - Fecal Coliforms



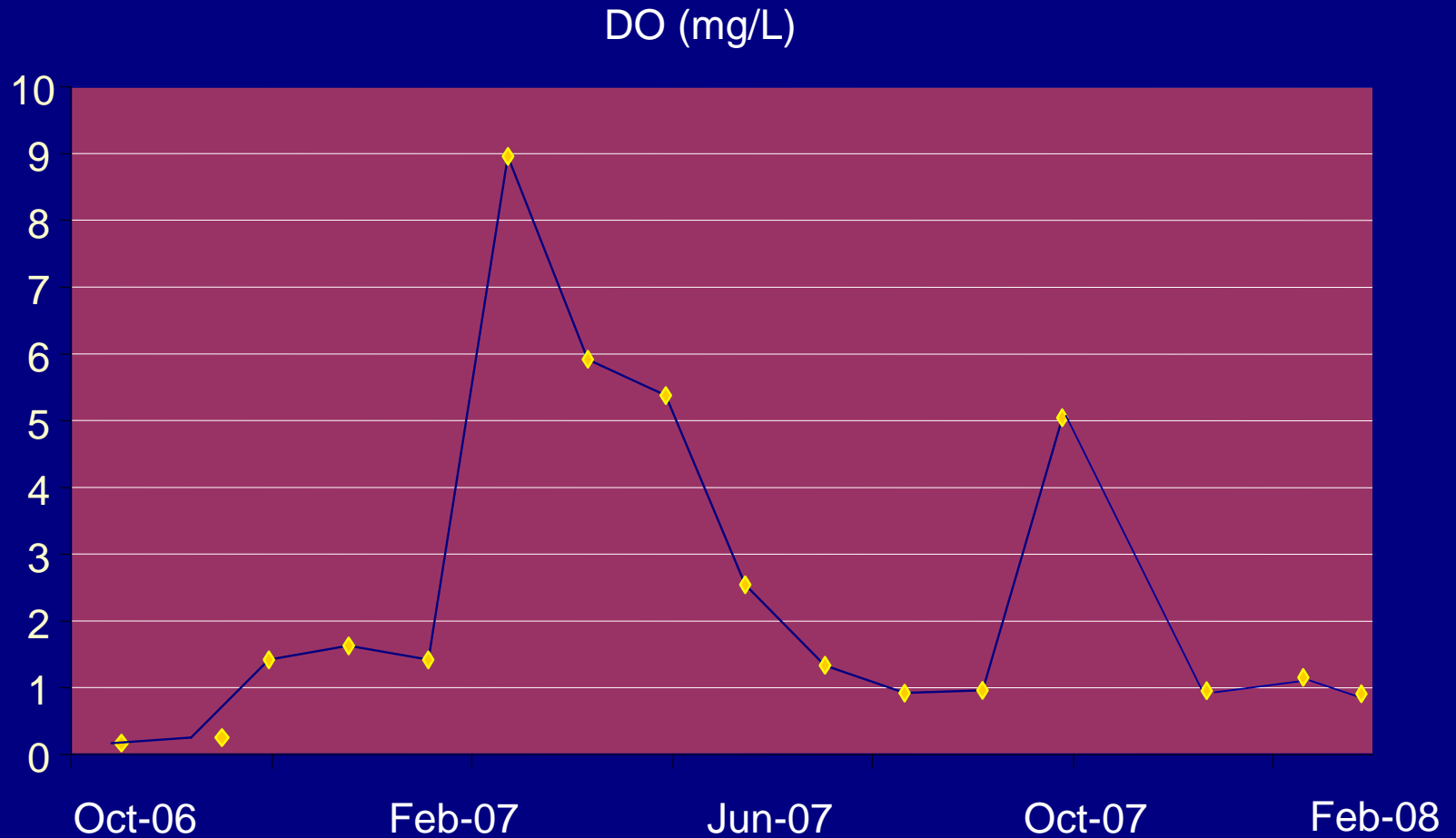
New River - Pathogen Indicators (After Las Arenitas)



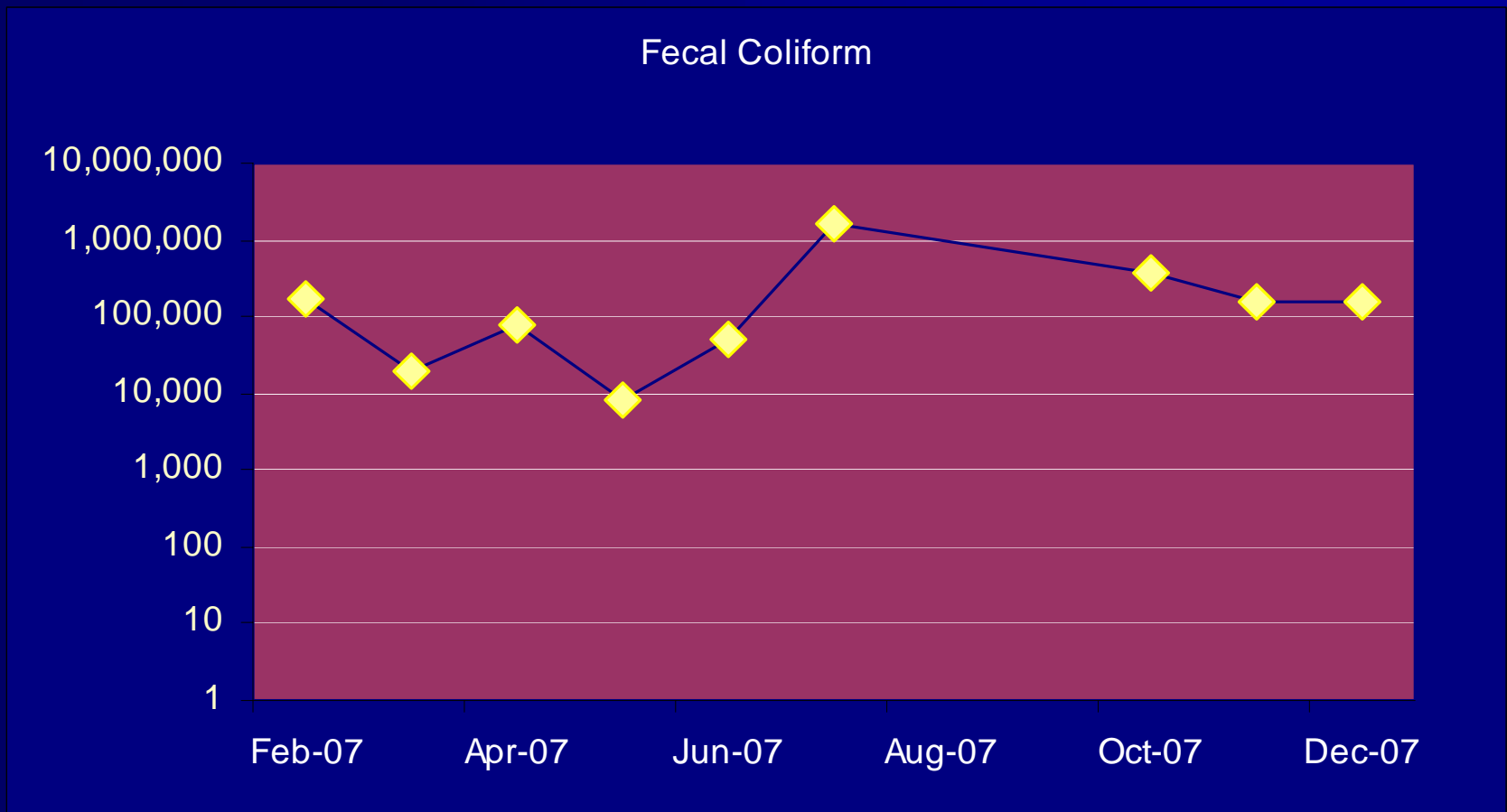
New River - Dissolved Oxygen



And Then...



Bacteria (MPN/100 ml)



Ongoing Problems

Pumping raw sewages



Illegal Discharges



Mexicali I Treatment Lagoons



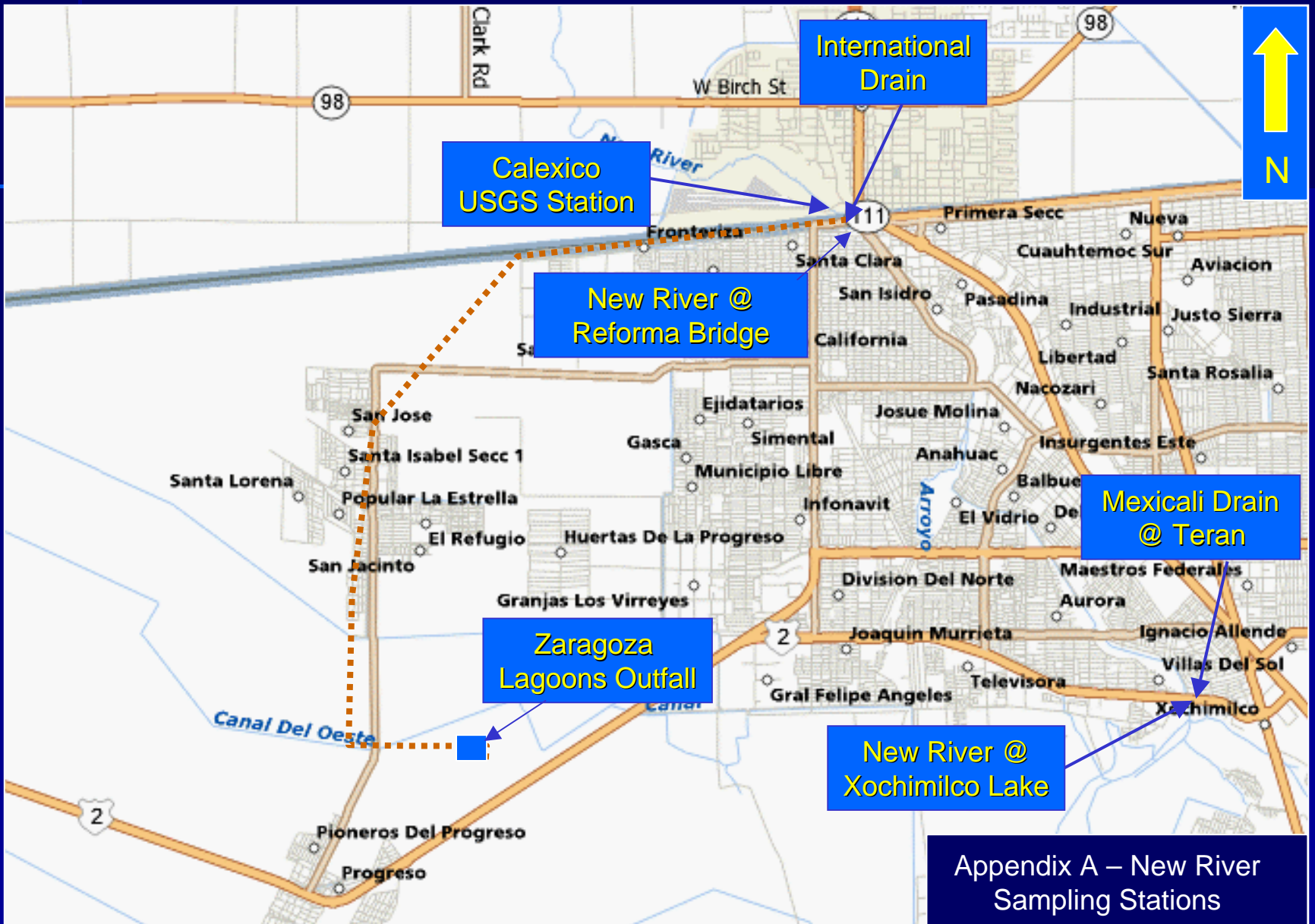
- Undisinfected
- High in nutrients
- High TSS

Observations/conclusions

- Slugs persist and wipe out gains
 - Need to report bypasses
 - Need to track/identify slug sources
- Bacteria remains a serious problem
 - Raw sewage?
 - Trash

Observations (cont'd)

- Trash remains a significant problem
 - It must be addressed
 - Adds bacteria and other pollutants
 - Dumping of toxicants a concern
- Industrial discharges must be addressed
 - Slaughterhouse discharges
 - Dairies/CAFOs
- NPS must be addressed



Appendix A – New River
Sampling Stations