

Strengthening The Institutions Responsible for Border Sanitation



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Strengths

- New and/or Improved Wastewater Treatment Facilities
- Collection Systems Improvements
- Operator Training Programs

Challenges

- Protecting the Public Health
- Setting/Enforcing Environmental Regulations
- Meeting Permit Requirements
- Institutional Strengthening

Institutional Strengthening



- On the Border - New and improved Wastewater Treatment Facilities in the U.S. and Mexico since 2000 now treat 100's of millions of gallons each day, 89% coverage
 - Juarez
 - Matamoros
 - Reynosa
 - Laredo and Nuevo Laredo
 - Del Rio
 - Eagle Pass

Institutional Strengthening

- On the Border - Collection Systems improvements have dramatically reduced untreated sewage overflows into the border waterways

- Rio Grande/Rio Bravo and its tributaries
- Colorado River/Rio Colorado
- Tijuana River



Institutional Strengthening

- Operator Training Programs
 - Mandatory Training for California, Arizona, New Mexico and Texas
 - Administered by each State under the EPA Clean Water Act
 - Voluntary Training Program for Mexico
 - Administered by Sociedad Mexicana de Aguas, AC (SMAAC) and recognized by the States and CONAGUA
 - CSUS Program translated and used in the western part of Mexico



Examples of Training Successes and Challenges



- Case 1 – Large Utility - transformation over 6 years in O & M Staff
- Case 2 – Border Utility – transformation to more confidence, better protection of public health
- Case 3 – issues specific to small systems – access to training, availability of qualified staff, pay scales

Other Successes



- Since 2001, Canada has mandatory treatment and operator training programs for all provinces
- South America is making great progress
 - Brazil has built new WWTP's and has an operator training program in many states developed by the World Bank Institute
 - Colombia is moving forward to build additional WWTP's in Medellin, Bogota, other cities
 - Venezuela and Argentina are also making good progress in collection and treatment

Challenges

- Protecting the Public Health
 - This is the highest priority but funding is the major hurdle
 - Institutional strengthening is a key component for success
 - Appropriate level of Operations and Maintenance is critical to protect the assets once they are built



Challenges

- Setting / Enforcing Environmental Regulations is harder than it sounds
 - Setting rules is relatively easy
 - Enforcing them is the hard part
 - Finding the funding for enforcement is difficult
- How do you measure success?
 - Epidemic reduction /prevention
 - Measurement of parameters such as Biochemical Oxygen Demand and Total Suspended Solids



Challenges

- Meeting Federal and State Permit Requirements is a critical factor for Enforcement AND Protecting Public Health
 - BOD/DBO and TSS/SST is the most common measurement
 - COD/DQO may be more useful – quicker, less expensive, comparable results allows much faster response to problems



Opportunities



- Bi-National Cooperation of cities across the border from each other
- Cross-Border Assistance
- Knowledge Sharing

Observations

- Issues of funding for development and maintenance of programs and staff salaries
 - You cannot pay subsistence salaries and expect to hire professional level staff
 - You are competing with other industries for the highly qualified staff needed for these more sophisticated facilities



Observations

- Political will is lacking and sorely needed for municipalities to collect enough funds to operate and maintain facilities
 - Elected officials are not willing to make the tough decisions to raise taxes and/or rates
 - Public education is needed to help customers understand the cost of providing safe water and wastewater treatment to protect them



Observations

- Staff – in all cases, more personal confidence in ability to do the job
- More professionalism in trained staff
- Management – better protection of assets and the public health



Conclusions

- Major progress in the last 10 years, but much more needed
- Engagement of all parties needed for success
 - Management
 - Staff
 - Customers
 - Stakeholders
 - Regulators
 - Others?



Questions?

