



Border 2012 U.S.-Mexico Environmental Program

Improving Water Quality in Arizona-Sonora

August 2008

THE PURPOSE OF THIS INFORMATION BULLETIN is to provide residents of the Arizona-Sonora border region with news and updates on the Border 2012 U.S.-Mexico Environmental Program. This edition focuses on projects of the Arizona-Sonora Water Task force which is part of the Arizona-Sonora Regional Workgroup. Activities under this workgroup strive to accomplish Border 2012's mission of protecting the environment and public health in the U.S.-Mexico border region, consistent with the principles of sustainable development. For more information on the Border 2012 Program please visit www.epa.gov/Border2012.

Atomic Absorption Spectrometer Supports Nogales, Sonora's Pretreatment Program

Prepared by Hans Huth, Hydrologist IV, Arizona Department of Environmental Quality, Office of Border Environmental Protection

SINCE THE SIGNING OF THE NORTH AMERICAN Free Trade Agreement (NAFTA), Mexico's northern border region has experienced accelerated industrial and population growth. The city of Nogales, Sonora, about 60 miles south of Tucson, is testament to this growth.

Located in a relatively small watershed (68 km²), Nogales, Sonora has an estimated population of more than 300,000, and continues to grow. Wastewater produced by Nogales, Sonora, is gravity-fed to a binational wastewater conveyance known as the International Outfall Interceptor (IOI). The IOI delivers wastewater to the Nogales International Wastewater Treatment Plant (NIWTP) located in Rio Rico, Arizona, 6 miles north of the border. This arrangement requires that Nogales, Sonora carefully monitor its wastewater stream to ensure protection of binational wastewater treatment infrastructure.

To control the quality of industrial and commercial discharges, the Nogales, Sonora Potable Water and Wastewater Utility (OOMAPAS-NS) has established a municipal pretreatment program. This program investigates sources of industrial contamination of wastewater in Nogales, Sonora. This work relies heavily on laboratory support from the Arizona Department of Health Services (ADHS). These data, while useful to OOMAPAS-NS, are not legally defensible in Mexico because the lab work is performed in Arizona.

In February 2006, OOMAPAS-NS completed construction of a water quality laboratory for preliminary analysis of wastewater.



Veronica Meranza and Selma Valenzuela from OOMAPAS-NS receive training from a Perkins Elmer representative.

The laboratory was designed to provide a sanitary environment for preliminary analyses of wastewater for priority dissolved metals (Cu, Fe, Mn, Hg, Pb, Zn, Cd, Cr, Ni), and oil and grease, and a location for storage and maintenance of sampling equipment. OOMAPAS-NS invested more than \$130,000 to develop this lab, demonstrating its dedication to pretreatment efforts in Nogales, Sonora. OOMAPAS-NS also received \$60,000 in Border 2012 funding in order to purchase a flame atomic absorption spectrometer (flame-AA) for metals analysis.

OOMAPAS-NS has initiated the multiyear process of obtaining Mexican federal certification in metals analysis for its laboratory. Once certified, the laboratory will produce legally defensible water quality analysis for the municipality, which will add legitimacy to the pretreatment program. Legitimacy is important given the need for the program to be recognized and respected by municipal leaders as well as the regulated community.

In addition to financial leveraging this project has resulted in political leveraging as well. During a binational pretreatment meeting in January 2008, OOMAPAS-NS announced that it had successfully implemented modifications to one of the State of Sonora's revenue laws. This law now allows OOMAPAS-NS to use revenue generated through wastewater permit fees exclusively for its pretreatment program, specifically in the operation and maintenance of its laboratory. The modifications also give the municipality the legal authority to set permit limits on industries ("local limits") more in line with the needs of the NIWTP.

This will be the first certified laboratory located along the Arizona-Sonora border. In addition to studying and investigating wastewater quality, the laboratory will be used for investigations of potable water quality. Overall, this project demonstrates a key principle of the Border 2012 Program: environmental improvements through projects that leverage financial and political resources on both sides of the border. ■



Nogales, Sonora Pretreatment Program Headquarters and Laboratory

EPA Funding for U.S.-Mexico Border Water Infrastructure Projects: Current and Future

FY07-08 BEIF/PDAP Prioritization Process Results

THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), in coordination with the Border Environment Cooperation Commission (BECC) and the North American Development Bank (NADB) announces the results of the Fiscal Years (FY) 07-08 Border Environment Infrastructure Fund (BEIF)/Project Development Assistance Program (PDAP) Prioritization Process for drinking water and wastewater infrastructure projects.

Some 143 eligible projects were evaluated with an estimated financial need of nearly \$600 million. Although each project addresses important environmental needs and merits further development, available EPA U.S.-Mexico Border Facilities Construction Program funding was not sufficient to support all of these infrastructure project needs.

Based on available FY07-08 funds, candidates for BEIF and PDAP assistance were identified from the Final FY07-08 BEIF/PDAP Prioritization List. A total of thirty-one (31) projects have been identified as candidates for FY07-08 BEIF. These 31 projects are also candidates to receive PDAP technical assistance funds for project development activities. The list of candidates selected for FY07-08 BEIF and PDAP funding can be viewed at www.cocef.org.

Actual BEIF participation will be considered on a project-by-project basis and will be determined according to funding availability and based on an affordability analysis to be conducted by the NADB during project development. BEIF will be made available to the identified projects with completed final design, financing approval and certification by the joint BECC/NADB Board. Projects identified for FY07-08 BEIF are expected to be completed within a five-and-a-half year project life cycle including no more than two years for project development and three years for construction.

In addition to the 31 project candidates for BEIF, ten (10) projects have been selected to receive PDAP technical assistance funds for project development activities leading to certification. These additional 10 projects identified for PDAP technical assistance will have two years to complete the project development process. If future program funding is available or FY07-08 BEIF resources exceed the needs of the 31 BEIF candidate projects, BEIF assistance may be extended to those projects selected for only PDAP assistance. A list of projects identified to receive only PDAP assistance is also posted on the www.cocef.org site.

Next Prioritization Cycle

In August 2008, EPA and BECC plan to announce a solicitation for proposals (RFP) for drinking and wastewater infrastructure projects for the FY09-10 funding cycle. We encourage all potential project sponsors and other interested parties to look for the RFP release. ■

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Websites

U.S. EPA Border 2012 Program

www.epa.gov/Border2012

Arizona Department of Environmental Quality (ADEQ)

www.azdeq.gov

Secretariat For Environment And Natural Resources (SEMARNAT)

www.semarnat.gob.mx

Commission Of Ecology And Sustainable Development (CEDES)

www.cedes.gob.mx

Border Environment Cooperation Commission (BECC)

www.cocef.org

North American Development Bank (NADB)

www.nadbank.org