

Southeast Arizona Citizens' Forum Board Meeting  
May 22, 2007  
Santa Cruz County Board of Supervisors Room 120  
Nogales, Arizona  
\*Tentative Meeting Notes

Board Members in attendance:

Russ McConnell  
Alejandro Barcenas  
John Ladd  
Brian Prescott  
Ben Lomeli  
Ben Laforge  
John Hayes

Members of the public:

Approximately 15 – 20 other members of the public were in attendance.

USIBWC Staff:

John Light  
Alison Lamb  
Maria Sainz

Mexico IBWC Staff:

Ing. Jesus Quintanar  
Yesenia Navarro

Opening

John Light greeted board members and attendees and also explained about how the citizen's forum will be getting back into the routine of quarterly meetings. John went through the agenda. First, John Earl will provide an update on the plant expansion. Second, he would be filling in for Carlos Peña who is unable to attend on the Nogales Wash tunnel inspection. Announcement made regarding new applicants for the Citizens'

Forum board. Current board members were encouraged to reapply as well as the public. Applications were located in the entranceway. John gave a brief overview of his position here as Project Manager, which includes the following (but not limited to) oversees wastewater treatment plant and Nogales Wash, and the border area from New Mexico to Lukeville. His Mexican Section counterpart is here in audience and they work cooperatively in trying to resolve issues. Introduction of board members; Russ McConnell, Alejandro Barcenas, John Ladd, Brian Prescott, Ben Lomeli, Ben Laforge, and John Hayes.

## **UPGRADE OF THE NOGALES INTERNATIONAL WASTEWATER**

### **TREATMENT PLANT:**

John Earl explained the history of the project. In 2003 USIBWC, the Border Environment Cooperation Commission (BECC), City of Nogales (CON), and the Arizona Department of Environmental Quality (ADEQ) formed the technical committee. In 2005 the committee recommended to replace the existing plant with Modified Ludzack Ettinger (MLE) system with the final effluent discharged into Santa Cruz River. MLE is a two-step biological nitrification-de-nitrification using aerobic and anaerobic genes which achieve nitrogen elimination by first converting to ammonia. Anaerobic zone to aerobic zone then recycle back to anaerobic. The plant capacity will be 14.74 million gallons per day (MGD), with 9.9 in capacity assigned to Mexico, 4.1 to City of Nogales and .74 to Rio Rico. The upgrade will meet all state and federal water quality standards. The technical committee chose a design-build method of project delivery. The contractor is responsible for design-build bid on a lump sum basis. There will be no allowance for inflation. A list of pre-qualified bidders was invited to submit bids based upon the

committee requirements. PCL was awarded the contract. October 2009 is the completion date however the end of July 2009 is the contractor's estimated date of completion. John Earl showed aerial photo of current plant where the new plant will be located. The influent will enter into the headworks into three aeration trains, five aerator blowers into three clarifiers with provisions for a fourth clarifier, into filter block for disinfection. They will be retaining current headworks using grit separators to make screenings smaller. Will then pass thru ¼" screens to remove rags, etc., which will then be taken offsite for disposal. Next, water will travel through a flow meter channel where flows will be split between aeration trains equally then over weirs to collection chamber to another splitter box divided equally into clarifiers. Clarifiers are slow moving to allow sludge to settle into the bottom; it is then returned by pump to splitter box into the sludge lagoon to be thickened and taken off site. John Earl then showed photos of amended site head works and explained the process of all areas. The current complete mix lagoons and partial mix lagoons will be de-commissioned when new plant is online. Showed lagoons dewatered and filters will be used in the new system as well as the chlorine building and dechlorination areas. Construction is working on dewatering 20 feet down for footing structures. Photos of a drilling rig and pipe installed pump at bottom used for dewatering. In the excavation area where clarifiers will be located, the contractor is taking all necessary precautions to keep the site clean and tidy. Fly through showed a 3 minute video that showed new plant. View of filter process and the polymer storage area. Will have five (5) blowers with provisions for six (6) so plant can easily be expanded if needed.

### Questions

What is the plant capacity in gallons? 14.74 million gallons per day

The plant is secondary or add on?

New plant will take over existing plant.

Cost per gallon for construction, operation and maintenance and capacity?

John Earl stated that he was not really able to answer those questions, his area was construction only.

John Light- Cost is \$366.00 per million gallons treated, in fiscal year 2009 the cost will increase to \$600.00 per million gallons mostly due to polymer use of electricity.

Maintenance is \$980 per million. Capacity is currently 17.2 MGD, too great of capacity for available grant funding for upgrade. 9.9 MGD is Mexico's limit. Mexico's plant treats flows above 9.9. Last three years the daily average was right at 9.9. This year it's significantly higher -- around 13-14 MGD range. Currently seeking funding for International Outfall Interceptor (IOI).

What is the average storm flow?

During peak 26-30 and daily flow 22

John Earl-

In excess of 15.7-15.8 on a constant basis hydraulic capacity is 30mgd. The water will not go through untreated but the plant will not be able to treat very long before plant goes into distress. Storm peaks are about a difference of 16. If we have extreme high flows they are calculated into average.

What is project life?

30 years or so longevity

What about capacity?

If IOI is replaced we will recover a lot of capacity. Adequate capacity for next 15 yrs.

Mexico is limited to 9.9 mgd (per treaty) plant is based on city having 4.1 mgd at the new plant with actual usage about 2.3. EPA paid for 2.3 with allowance of 4.1

Took about 10 years to construct what about the future?

Have about 50% into reserve

Question on sludge. Is that a press?

Press-thickened off site

Advocate of recycling the byproduct. Are we doing that?

Not enough funding in trying to come up with a method of recycling.

Currently there is a pumping plant to divert sewage flows from Nogales Wash to the treatment plant. Will it be possible with new plant?

Should be possible, Arizona Department of Environmental Quality, IBWC, City of Nogales will notify when there is sewage in the Wash. A standard operating procedure is in place to evaluate what is happening at the Wash. The notification protocol is much better than has been in the past.

Sherry Sass (Friends of the Santa Cruz River) said don't forget about us.

Craig Tinney (ADEQ) responded to the following questions:

Effluent is not suitable for humans how about animals?

We are currently meeting secondary standards.

Craig Tinney responded with unrestricted aquatic and wildlife and body contact. State of Arizona treats to drinking water standards but do not drink it.

Is it safe for partial body contact?

We currently meet standards.

Will the City of Nogales eventually need to recharge to replenish aquifers?

I do not see any problem.

Another question presented was will the plant be open to the public as previously for bird watching?

Up until 9-11 bird watching was allowed at the treatment plant. After 9-11, we only allow groups with reservations only. This is for safety purposes. After the plant is upgraded, we will no longer have lagoons to support wildlife.

#### **STRUCTURAL INSPECTION OF THE NOGALES WASH TUNNEL:**

John Light then gave the presentation for Carlos Peña on the upcoming bi-national Nogales Wash Tunnel inspection with a brief history of the tunnel. The tunnel is a storm water conveyance between the United States and Mexico. Construction started in 1933 and was completed in 1936. It was extended in 1948-1949. Six miles of the tunnel are located in Mexico and 8.5 miles are within the United States. The wash is open in most places in Nogales, Sonora and concrete lined in the U.S.

The request for the inspection came from Mexico. The U.S., Mexico, Corps of Engineers and OOMAPAS (Mexican water utility) will perform the joint inspection. The inspection will be a structural assessment, as it is reported that the concrete floor is eroded, rebar is exposed and there are large potholes in the ground. This assessment will provide guidance on which way to proceed next. The inspection will start in Mexico and

they will walk the structure into the United States. The tunnel is a very insecure place to be and the USIBWC no longer goes into the tunnel due to safety reasons.

The next step will be a written report to identify both the short term and long term needs of the wash. For more information regarding the tunnel inspection, contact either Jesus Quintanar of the Mexican Section or Carlos Peña of the USIBWC in El Paso.

**DISCUSSION OF TOPICS FOR THE NEXT MEETING IN COCHISE COUNTY:**

- Border Patrol projects.
- Update on the Naco landfill.
- San Pedro
- Overview of the fencing project – what is the ultimate goal.
- Also recommended for the next meeting in Nogales, Arizona – an update on the TCE well contamination.

It was also stated the CF meetings needed more publicity in the Sierra Vista area.

John Light then concluded the meeting stating that on behalf of Commissioner Marin, he would like to present the current Board Members (whose terms have expired) with Certificates of Appreciation. He again reminded everyone that applications were available in the entryway. Everyone again was encouraged to apply.

\*Meeting notes are tentative and summarized in draft the contents and discussion of Citizen's Forum Meetings. While these notes are intended to provide a general overview of Citizen Forum meetings, they may not necessary be accurate or complete, and may not be representative of USIBWC policy or provisions.