

WASTEWATER MANAGEMENT ADVISORY COMMITTEE
MEETING MINUTES
November 16, 2006

Committee Members Present:

Adam Bliven	John Carlson	Rob Kulakofsky
Michael Gritzuk		

Committee Members Absent:

Sheila Bowen	John Carhuff	Brad DeSpain
Steve Halverson	John Sawyer	Mark Stratton
Armando Membriila	Ann Marie Wolf	Les Wolf

Staff Present:

Paul Bennett	Mary Hamilton	Suzy Hunt
Jackson Jenkins	Charles Mattewson	Steve Munsell
Lorraine Simon	Eric Wieduwilt	

Other County Staff Present:

Pat Cavanaugh	Ann Donahue	Chuck Wesselhoft
Executive Aide District I	Department of Transportation	County Attorney's Office

I. CALL TO ORDER. Chair Adam Bliven called the meeting of the Wastewater Management Advisory Committee (WMAC) to order at 7:54 A.M.

II. APPROVAL OF MINUTES. As there was not a quorum, approval of the Committee meeting minutes of the October WMAC meeting was tabled to the next scheduled Committee meeting, and the formal meeting was adjourned. Informal presentations and discussion then followed.

III. COMMITTEE/SUBCOMMITTEE REPORTS.

A. Citizens' Water Advisory Committee (CWAC) Update. The CWAC Report was not presented.

IV. WASTEWATER MANAGEMENT (PCWMD) DIRECTOR'S REPORT. Mr. Mike Gritzuk, Department Director, presented the Director's Report and reported on the following items.

- **Odor Control Plan.** The intent of the Odor Control Plan is to study the entire wastewater conveyance and treatment system and develop a method of system-wide odor control. The product of the Plan will be a comprehensive integrated odor control program, including a detailed cost estimate and implementation schedule.

The Department now has a baseline of an odor "footprint" for the wastewater conveyance and treatment system. The Project Consultant, Greeley and Hansen, put all this data into a model that is being used to sample the entire conveyance system. In addition, the Consultant, within the first 90 days of the project, has developed a near-term action plan to address odors that are easily fixed or can be fixed in the near-term. The Department has launched its near-term fix program, and each program includes an action plan, implementation schedule and reporting mechanism. Mr. Gritzuk reviewed the near-term fixes being implemented by the Department.

Mr. Gritzuk also informed Committee members that Greeley and Hansen is continuing with development of the Comprehensive Odor Control Plan recommendations that will

include the near-term fixes, long-term fixes and an implementation schedule. The schedule will be developed in such a way that the more significant improvements in odor control would be implemented early in the program. The Plan, schedule and cost of implementing the Plan will be presented to the Committee. Discussion followed.

Mr. Bliven asked if the Odor Control Plan included benchmarking. Mr. Gritzuk responded in the affirmative. As near-term fixes are put in place, the Consultant will resample for odors and compare the results with the results before fixes were implemented.

Mr. John Carlson asked, depending on what is done with the Roger Road Wastewater Treatment Plant (WWTP), if some of the near-term fixes would not be implemented at that facility. Mr. Gritzuk responded if the Roger Road WWTP is decommissioned and a new facility constructed, that will take nine years and the Department will not wait nine years to incorporate odor control. The Department will move ahead with the near-term fixes that are viewed as interim and will last eight or nine years.

Mr. Carlson also asked if the odor control chemicals would have any impact down stream. Mr. Gritzuk responded this has been studied extensively and the Department is not using chemicals that will upset the wastewater treatment process or create problems elsewhere.

Mr. Kulakofsky asked if there was a way to scientifically analyze the amount of odor. Mr. Gritzuk responded in the affirmative. In establishing the baseline, extensive air samples were taken and analyzed. Mr. Kulakofsky felt that in neighborhoods where there are ongoing odor problems, providing data analysis on before and after putting near-term fixes in place would be beneficial. Mr. Gritzuk responded the Department plans to do it just this way.

Mr. Bliven suggested another source of odor control data that could be presented to the public would be the number of complaints the Department has received. Mr. Gritzuk responded that Citizen Involvement Committee (CIC) members have been asked to get the word out that anyone experiencing odors should contact the Department. All of this data will be turned over to the Consultants.

Mr. Carlson asked how many localities have similar odor complaint problems. Mr. Gritzuk responded that he did not feel Pima County's odor control issues were any different than other major population centers. The only difference is that Pima County has not moved ahead as rapidly as it should to correct the problem. In the near future, the CIC will be touring one of Phoenix's wastewater treatment facilities where odor control was implemented approximately 10 years ago and odors are imperceptible.

- **Compliance and Regulatory Affairs Office.** The Department is in the process of creating an office of compliance and regulatory affairs. This office will manage all of the Department's regulatory matters (including regulatory compliance, permitting and reporting activities). Mr. Gritzuk said he would like to give a presentation on the new office at the next WMAC meeting.
- **Capital Improvement Program.** The Department is going to hire a firm that will evaluate the way the Department manages its Capital Improvement Program (CIP). The intent is to make sure that the Department's engineers are well versed in capital project management, that the Department is adequately staffed to complete the CIP projects and to make sure that the Department has all of the tools needed to manage its expanding CIP program. This evaluation will include a review of other Departments' involvement in the CIP to make sure everything is coordinated in order to effectively manage the program to bring projects in on schedule and on budget. The Department will interview the short-list of consultants for this evaluation on November 20, 2006.

V. DISCUSSION.

A. Old Items/Updates.

1. **Regional Optimization Master Plan (ROMP) Update.** Mr. Gritzuk presented the ROMP update. (Committee members received copies of the PowerPoint presentation of the ROMP.)

The Department has developed its ROMP preferred option. Currently, the Department is in the process of re-examining all assumptions included in this preferred option. The preferred option will become the Department's recommended option when this process is completed, and it will be presented to County Administration and the Board of Supervisors.

The driving force and scope of work for the ROMP is to develop an optimum plan to comply with regulatory requirements to reduce nitrogen in the effluent that is discharged from the treatment facilities and within the timeline the Department has been given by ADEQ. The ROMP also involves developing the optimal strategy for long-term flow capacity management of the metropolitan basin and outlying growth areas. The ROMP that is being presented will address regulatory, rehabilitation and capacity needs to 2030.

The ROMP will determine the optimal treatment process to meet these regulatory requirements. This will include development of: a long-term plan for the treatment handling and reuse of system biosolids; an implementation schedule to comply with the regulatory guidelines the Department has been given by ADEQ; and an optimal plan to implement the reclamation and reuse needs of the City of Tucson. Mr. Gritzuk noted that the City of Tucson owns 90 percent of the effluent produced by the Ina Road and Roger Road facilities.

Because the cost of this program will be in the hundreds of millions of dollars, the Department will develop a financial plan to support the ROMP and how it can unfold over the next 15 years. The Department is required to have in place nitrogen removal facilities at the Ina Road Water Pollution Control Facility (WPCF) by January 2014 and at the Roger Road WWP by 2015. Other components of the ROMP can be accomplished after this. The Department will lay out a program to accomplish these tasks so that it can cost-effectively undertake the ROMP and hopefully dampen the rate increase impacts.

The schedule for development of the overall ROMP is 24 months, and the notice to proceed for the Project was issued on April 1, 2006. The ROMP contract amount is \$2 million.

By January 2007, the Department is required to notify ADEQ of its plan to remove nitrogen from the treated effluent to meet the requirements of the new Arizona Pollutant Discharge Elimination System (AzPDES) permits for the Ina Road and Roger facilities.

The ROMP preferred option for reclaimed water, includes:

- Reducing the current capacity of the Roger Road 41 MGD facility to a new 32 MGD water reclamation facility, with effluent deliveries to Tucson Water's Sweetwater Recharge/Recovery Facility of 25 MGD and 7 MGD (seasonal) to the Santa Cruz River.

Tucson Water staff, Melodee Loyer, commented that 30 MGD not 25 MGD for Roger Road has always been discussed at the ROMP meetings. Mr. Gritzuk responded that the additional 5 MGD was to come from the pump back option from the Ina Road WPCF. Ms. Loyer responded that the pump back was discussed as part of the Santa Cruz River recharge, not as part of Tucson's need. Mr. Gritzuk said this issue would be clarified with Tucson Water.

- Constructing a plant interconnect that would divert the remaining influent that is naturally conveyed to the Roger Road WWTP to an expanded 50 MGD Ina Road WPCF, which would also provide effluent to a Tucson Water reservoir and pump station located on the Ina Road site to be built by Tucson Water.
- Increase effluent quality to Class A+ (reclaimed water quality) to meet future regulatory requirements. This would be accomplished through the introduction of filters at the end of the treatment process and the introduction of a different method of disinfection – ultraviolet light.

The ROMP preferred metropolitan area option includes:

- Decommissioning the existing 41 MGD Roger Road WWTP.
- Constructing a new 32 water reclamation campus in the vicinity of Roger Road.
- Expanding the Ina Road WPCF to 50 MGD, which would include a plant interconnect between both plants to convey more waste from the Roger Road to the Ina Road facility.

The existing Roger Road WWTP is on a footprint of 35 acres. The new water reclamation facility (with a capacity of 32 MGD) can be constructed on approximately 13 acres of property. The location of the new facility would be worked out in discussions with Tucson Water and also with the Pima County Department of Natural Parks and Recreation, as there is growing desire to develop a regional sports park around this property.

The ROMP preferred option for the Roger Road facility would:

- Free up the property in the vicinity of the existing Roger Road facility for economic development (including the sports park and along the Interstate 10 corridor in this area) and also enhance environmental projects along the Santa Cruz River.
- Provide a new system that would be more flexible, reliable and operable.
- Provide the least risk for regulatory non-compliance. If the Department were to rehabilitate the existing Roger Road facility, it would have to maintain the treatment process in the existing facility as it was being dismantled. Much of the rehabilitation work would require the diversion of influent flows, and there would be a high risk of permit non-compliance at the Roger Road WWTP.

Mr. Carlson asked the reasons for not diverting all of the effluent to the Ina Road WPCF. Mr. Gritzuk responded that it is more economical to deliver the effluent to Tucson Water at the Roger Road site and 50 MGD is the most cost effective capacity for the Ina Road site. Mr. Carlson felt that information should be included in later ROMP presentations.

The ROMP preferred option for expanding the Ina Road WPCF to 50 MGD, would involve a 12.5 MGD expansion of the current 37.5 MGD facility. This expansion could fit on the existing property. In addition, the County has reserved land on this site for Tucson Water because they intend to take reclaimed water from the Ina Road facility and put it into their distribution system at that location, and they need some storage and pumping capability to do that.

The planning level capital cost estimate to implement the overall preferred ROMP option is in excess of \$320 million. This includes a new 32 MGD treatment facility in the vicinity of the existing Roger Road WWTP, an expansion of the Ina Road WPCF to 50 MGD, extensive process conversion at both facilities, an interconnection between the two treatment facilities and all of the required solids handling upgrade. The \$320 million figure does not include associated engineering, legal, construction management or administrative costs, inflationary costs, and other intangible infrastructure.

The Consultants are currently in the process of “drilling down” into this cost estimate to make it more realistic and also to develop some estimates for all of the other costs not included in the \$320 million. Ballpark figures for design costs are around 25 percent of project costs and would need to be added. More detailed figures will be developed as a part of the recommended ROMP. The overall refined estimated cost will be substantially higher.

Mr. Gritzuk reviewed the Sports Complex Concept Plan, which was developed by the County’s Natural Resources and Parks Department. The Plan reflects the Complex as being laid out on all of the property owned by the County in the Roger Road WWTP area as well as property that is owned by the City of Tucson. Under the Plan, the Flood Control District would enhance some of the restoration along the Santa Cruz River and also help with some of the parks development in that area. In addition, the Roger Road facility would become a water reclamation campus, and could incorporate other environmental needs that the County may have in this campus type setting. After over 55 years of service, the Department would then retire the name of Roger Road Wastewater Treatment Plant.

Mr. Carlson asked whether the ROMP included evaluation of a possible development of a treatment plant located in the Kolb Road/Harrison Road area - along the Rillito River and when the Department would come to conclusions about this possibility. Mr. Gritzuk responded in the affirmative and said as a part of the “drilling down” process, the ROMP is looking at population projections for the entire treatment and sewage conveyance system, and where the optimal locations to treat are located. In the Houghton area there are two options being evaluated: 1) the feasibility of conveying waste into the metro facilities; or, 2) a sub regional facility built to handle that area.

Mr. Bliven commented that, since A+ water would be discharged from the new Roger Road and expanded Ina Road facilities, a lot of the treatment burden will be taken away from Tucson Water to make reclaimed water. Mr. Gritzuk responded that the preferred ROMP option allows Tucson Water to decommission its existing treatment facility at Roger Road, but not to decommission their storage facilities, etc. He said the Department would be discussing cost sharing options with Tucson Water. Mr. Bliven asked if the new Roger Road facility would support the Sweetwater Wetlands as a remaining park or system.

Tucson Water staff, Ms. Melodee Loyer, responded Tucson Water would continue to maintain the Sweetwater Wetlands, decommission the filtration system which provides 10 MGD, and coordinate all of its facilities with Pima County. She added that Tucson Water’s permits for reuse are Class A, and the discharge permits for the treatment facilities are B.

Mr. Kulakofsky asked how the Department would handle interim wastewater treatment between decommissioning and setting up the new treatment facilities. Mr. Gritzuk responded the easiest way to maintain permit compliance at the Roger Road facility is to continue the operation of the facility while building the brand new facility somewhere

in the vicinity. Once that facility is constructed, the existing facility can be shut down. At Ina Road, there are two facilities – a 25 MGD facility that requires process conversion and a new 12.5 MGD facility that already meets the nutrient removal permit requirements. The 25 MGD facility will have to remain in operation as its process is being converted and that will be a complex process. He noted that Phoenix's large 92nd Avenue Facility went through this same type of process conversion. In addition, the Department has an interconnect that transports solids from the Roger Road WWTP to the Ina Road WPCF and this interconnect would need to remain in operation. The Department is optimistic that it can accomplish these complex tasks within the established deadlines.

2. **2007 Financial Plan/Budget (Revenue and Expense) Projections.** Mr. Bennett presented an update on preparation of the 2007 Financial Plan. He noted that Mr. Jeff Nichols was starting to take the lead on the Financial Plan, but was unable to attend this meeting. Key issues that will be addressed in the Financial Plan include evaluating the impacts of commercial/industrial rates relative to winter averaging and strength of sewage, which the Black & Veatch Rate Study identified as needing evaluation. On November 14, 2006, the Board of Supervisors authorized a (no cost) amendment to the contract with the consultant, Black & Veatch, to add (as an additional task within the Rate Study) evaluating and making recommendations for implementing an assistance program for low-income sewer customers.

In July 2006, the Board of Supervisors authorized four 6% increases to connection fees over the next two years, between August 2006 and January 2008. In addition, the Board approved a series of two 6% increases to user fees over the next year, between August 2006 and January 2007 and directed the Department to come back in spring 2007 with a financial plan. The Plan will need to include an evaluation of the user fee revenue stream, and also the connection fee revenue stream (in light of the reduction in issuance of housing permits to determine if connection fees need to be adjusted).

3. **Capital Improvement Program (CIP) Update.** Mr. Bennett presented an update on the Department's CIP program.
 - **Corona de Tucson Wastewater Treatment Facility (WWTF) Expansion.** Construction of the developer-funded 1.0 MGD (two 0.5 biological nutrient removal-oxidation ditch (BNROD) units) capacity expansion is underway at the Corona de Tucson WWTF. The Board of Supervisors has authorized the Department to bid on the easement land with the State Land Department to get setback easements around the Facility.
 - **New Federal Prison.** In January 2004, the Board of Supervisors approved a master sewer service agreement with the Federal Bureau of Prisons (FBOP) for Pima County to provide sanitary sewer service to the new Federal Prison located at South Wilmot Road in Tucson. Under the agreement, the FBOP is to pay all costs associated with construction of the Prison's new required outfall sewer, in addition to the required/involved connection fees. The contract to construct the 36 inch three and one-half mile sewer pipe from the north side of Houghton Road to the Prison was awarded to KE&G. The Department will spend approximately \$5.5 million in FY2006/07 on this project. Project completion is anticipated by fall 2007.
 - **Marana WWTF.** Completion of the Marana WWTF 0.5 MGD wastewater treatment system (first phase of the 2.0 MGD expansion) is now expected late December 2006. The Department will spend approximately \$3.5 million in FY2006/07 on this project.

The design consultant, Stantec, is completing design of the Marana 1.5 MGD BNROD facility. Hunter is the construction manager at risk for the 1.5 MGD expansion project.

Under regulatory requirements, the Department is required to install ultraviolet (UV) filtration at the Marana WWTF within one year of permit issuance for the BIOLAC® by ADEQ. The UV system is in the design phase.

- **Avra Valley WWTF.** KB Homes as a developer contractor with Ashton Construction, is constructing and augmenting the existing BNROD ditch which will increase treatment capacity from 1.2 MGD to 2.2 MGD at the Avra Valley WWTF. Project completion is expected by April 2007.

Malcolm Pirine is the design consultant for the project to expand the Avra Valley facility's treatment capacity to 4.0 MGD. Kennedy/Jenks, is the project manager, and Sundt Corporation is the Construction-Manager-At-Risk for this expansion project. Anticipated start of construction of this project is January 2007.

- **Carrillo School Sewer Rehabilitation.** This project to rehabilitate an older sewer line in the Carrillo School neighborhood, which is just south of the Tucson Convention Center, is under construction. Project completion is anticipated by March 2007. The cost of the project is approximately \$3.2 million.
- **Santa Cruz Interceptor.** Due to some concerns about cultural and historic issues in the area. The start of the Santa Cruz Interceptor, Phase II (Prince to Grant) Project and Phase III (Prince to Alameda), Project has been delayed. However, the project contractor has guaranteed they will hold their prices until the middle of December 2007. About 6,000 feet has been cleared for construction, which will allow the Department to award the \$21 million Phase II contract the first quarter of 2007. This also will allow the Department to move forward and bid the \$14 million Phase III project in 2007. The significant cost of the Phase II Project and Phase III Project is due to the location and size of the interceptor. Phase II, which sits behind bank protection and is 25 feet below grade, and is a 66 inch to 72 inch diameter sewer pipe.
- **Roger Road WWTP.** Two storm water basins are under construction at the Roger Road WWTP with an estimated cost of \$3 million. In addition, the Facility's sludge line is being maintained to ensure it remains in good operation for the next eight to 10 years. In addition, a new package thickener is on order and will be installed at the Facility.
- **Regional Optimization Master Plan (ROMP).** The Department will spend approximately \$1.4 million in FY2006/07 on the ROMP.

The cost of the Department's top 10 projects is almost \$35 million, which does not include the Department's smaller projects. Mr. Bennett also informed the members that the Arthur Pack reclaimed line is now in service.

The Department will spend approximately \$80 million on CIP projects in FY2007/08. The Santa Cruz Interceptor (Phase II and Phase III Projects), completion of construction of the Marana WWTF BNROD, construction of the 4.0 MGD Avra Valley WWTF will constitute approximately 70% of the Department's CIP budget for FY2007/08. The Department is also evaluating having available job order contractors

to perform rehabilitation on the sewerage conveyance system and also to perform rehabilitation projects at the Roger Road and Ina Road facilities.

B. New Items.

1. **Houghton Area Master Plan (HAMP), Wastewater Conceptual Plan.** Mr. Steve Munsell and Mr. Charles Matthewson reported on the HAMP. (Members received copies of the PowerPoint presentation on the HAMP in their meeting packets.)

Mr. Munsell informed Committee members that this was a conceptual plan, not an engineering study. The Conceptual Plan looked at areas outside of HAMP in order to include all tributary flows. The objectives of the HAMP Wastewater Conceptual Plan were to:

- Develop a proactive approach to the Arizona State Land Department development plans.
- Prepare for anticipated growth in the HAMP area and upstream areas.
- Coordinate with Tucson Water planning.
- Provide consistency with previous planning efforts.
- Optimize use of existing infrastructure.
- Recommend a flexible plan for growth.

The conclusions of the Conceptual Plan are:

- The HAMP build-out population is approximately 88,000.
- The wastewater area build-out sewer population is 149,000
- The flat topography in the HAMP area provides conveyance flexibility either to the Pantano Interceptor or Southeast Interceptor.
- Wastewater treatment in the HAMP area has high capital and operations and maintenance (O&M) costs but could provide opportunity for collaboration with Tucson Water if beneficial to the reclaimed water system.
- Common conveyance elements shared by the Pantano and Southeast Interceptors allow flexibility.
- The HAMP versus regional treatment may be influenced by the outcomes of the ROMP.

The recommendations of the Conceptual Plan are:

- Proactively communicate infrastructure plans to the State Land Department as they relate to land sales/development in the HAMP area.
- Develop improvement alternatives that include common conveyance elements of Scenario 1-B, the Pantano and Southeast Interceptors, and Scenario 2-B, further evaluation of a 5 MGD HAMP treatment facility to provide reclaimed water to the HAMP and planning area.
- Initiate discussions with Tucson Water regarding use of effluent from HAMP facility in reclaimed water system.
- Compare operating costs of HAMP treatment facility supply and Roger Road WWTP supply to identify community cost benefits. Discussion followed.

Mr. Bliven asked if the Conceptual Plan had put costs to the recommended options. Mr. Gritzuk responded in the affirmative, and said the projected costs, which includes solids handling as well as reclamation, were \$50 million, plus \$25 million for engineering and construction costs.

Mr. Bliven asked about the cost estimates for augmenting the Pantano and Southeast Interceptors as a comparison. Mr. Matthewson responded the Conceptual Plan just looked at the immediate study area. Mr. Munsell added that the Southeast Interceptor in the area of Euclid and Interstate 10 requires augmentation regardless of what is done in the Plan area.

Once Tucson Water finishes their portion of the study, the two studies will be coordinated. Mr. Matthewson said this has been a fairly unique study, in so far as the Department and Tucson Water have cooperatively partnered with the same consultant to evaluate both the wastewater system and reclaimed system.

2. **Staff Report.** WMAC Coordinator, Suzy Hunt, reminded the members that in the past they received electronic and hard copies of the Staff Report. In addition, members receive comprehensive reports from Mr. Gritzuk and staff members. Staff is proposing that the monthly staff report be eliminated. Discussion followed.

Mr. Kulakofsky commented that, when he was becoming oriented to the Committee, the monthly staff report was helpful.

Discussion of this item is continued to the next scheduled Committee meeting.

VI. FUTURE AGENDA ITEMS. 2007 Financial Plan Update, Compliance and Regulatory Affairs Office Update, 2008 Bond Program, Arid West Water Quality Research Project Update, Regional Master Plan and Odor Control Plan Update; Black & Veatch Rate Study Report on Low-Income Assistance Program; Skill-Based Pay Program; Ina Road Facility Tour; Wastewater Management Strategic Plan; a Tucson Water Assured Water Supply Presentation; Regional Discussions on Water/Wastewater Issues; Detailed Presentation on Regional Optimization Master Plan – Draft Plan (November/December 2006).

VII. CALL TO THE AUDIENCE. Mr. Frank Boyle, CWAC Chair, provided an update on key issues being discussed by the CWAC.

VIII. ADJOURNMENT. The meeting adjourned at 9:46 A.M.