



**REGIONAL WASTEWATER RECLAMATION ADVISORY COMMITTEE (RWRAC)
CAPITAL IMPROVEMENT PROGRAM (CIP) SUB-COMMITTEE MEETING
Conveyance Division
3355 N. Dodge Blvd - Conference Room**

Members Present: Sheila Bowen (Vice Chair), Bob Iannarino (Chair), Matt Matthewson, Amber Smith, Ann Marie Wolf

Others Present: Jennifer C. Coyle (RWRD), Jackson Jenkins (RWRD), Patrick McGee, Ray Pagel (RWRD), Jaime Rivera (RWRD), Lorraine Simon (RWRD), Mark Taylor (RWRAC Chair), John Warner (RWRD), Jody Watkins (RWRD), Ken Welch (RWRD), Don Willhoit (RWRD), Monica Wilson (Town of Sahuarita)

Thursday, December 3, 2015
8:30 a.m.

A. Call to Order/Roll Call

Bob Iannarino (Chair) called the meeting to order. Meeting began at 8:31. Jody Watkins took roll call.

B. Pledge of Allegiance

C. Safety Share – Jackson Jenkins, Director Regional Wastewater Reclamation Department (RWRD), spoke about space heaters. Be cautious when using these and be careful not to overload the electrical circuits with holiday lighting. Overloading the circuits can trip a breaker and start a fire.

D. Call to the Audience – None

E. Approval of Minutes – Bob Iannarino (Chair) stated the approval of the minutes to the November 20, 2015 meeting will be deferred to the next meeting date.

F. Discussion/Action

1. Presentation of Capital Improvement Program Five-Year Plan

John Warner, RWRD Deputy Director Conveyance Division, introduced some staff members who work with the CIP Plan: Jaime Rivera (CIP Section Manager), Don Willhoit (CIP Tracking Section), Ken Welch (CCTV Program Manager), and Ray Pagel (Rehabilitation Section Manager).

Ken Welch, CCTV Program Manager, spoke on the closed caption TV (CCTV) program. The pipeline rehabilitation in the sewer conveyance system begins with the CCTV program. The CCTV unit complies with the Capacity Management Operations and Maintenance (CMOM) regulations of filming all pipe in the sewer conveyance system within a ten-year cycle. Approximately 600 miles of pipe are televised a year. The process of CCTV involves sticking a camera in the line and inspecting it. The National Association of Sewer Service Companies (NASSCO) protocol is followed to identify and find defects, and code them by a ranking system of pipe condition. In-house crews CCTV some of the sewer pipes in the conveyance system. With 3,478 miles of sewer pipe in the system, the volume is too great for in-house crews to inspect the condition of all the pipes. The Department utilizes an outside contractor, Pro-Pipe, at a cost of \$2 million a year, to conduct the majority of the CCTV inspections. In-house crews, and contractors clean, CCTV inspect, code, and send the data out to NASSCO. Not all problem areas identified will require immediate follow up. Problem areas that are identified to rank higher in the NASSCO coding system for failure or blockage will generate a work order for conveyance crews to repair. Emergency repairs are sent over to the Field Engineering section, who works with a contractor to make the repairs. The Department has Project Managers to prioritize projects based on funding and other resources which are available. An archive is maintained of CCTV and recorded to compare a history of video pipe condition over time.

Increased funding and productivity for the CCTV program and cleaning has been achieved since 2012, and the Department is on track to meeting their goals. In-house crews verify the CCTV video cleaning and inspection, and prioritizing is done to



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standard for consistency. Mr. Jenkins added in the past, the Department was paying to maintain International Organization for Standardization (ISO) certification to formulate, track, and document all processes. The Department has elected not to pay to continue with the ISO certification program, but still performs to ISO criteria. The CCTV section maintains NASSCO certification to industry standards with maintaining pipelines, manholes, and laterals in achieving the highest level of quality work. The 10-year cycle ends in 2017 and the ten-year cycle will start all over again, especially for the smaller lines. Interceptors are the larger pipes and will be inspected every five years. The Department has just completed the South Rillito Interceptor (SRI) and is currently working on the North Rillito Interceptor (NRI). A question was raised, since money has already been spent for the past ten years with the CCTV, will there be less spent for the next ten-year cycle. Mr. Welch responded that the same amount of money will be needed to film the smaller lines once, and twice for the interceptors. With reference to the repairs, there are some older pipes in the system, over 100 years old. John Warner, Deputy Director, Conveyance Division, added the NRI Condition Assessment photo showing a substantial amount of degradation occurred from 2003 – 2012. There are some interceptors that may require an inspection every two – three years. Acceleration, corrosion, and other factors are unknowns. Having a proactive rehabilitation program, CCTV, and participating in the NASSCO program are proactive measures the Department can follow. The Department is doing well compared to the rest of the nation in knowing the condition of its assets. A question was raised if reduced flows affect the system. Mr. Warner responded by saying the sewer conveyance systems are designed for a set flow volume. As flows drop, it depends on the wastes that are being carried out, in relation to the amount of solids. That being the case, this would require more maintenance and more flushing to increase the liquid volume to transport the solids to the Headworks of the treatment facilities. Mr. Welch added with reduced flows you increase the surface area of the exposed pipe.

Jaime Rivera, CIP Section Manager, added that the CCTV section identifies defects in the system that require rehabilitation and repair. These defects are listed with data that a Project Manager will sort data by number, address, location, materials, etc. This becomes the source of all Job Order Contracts (JOC)s issued to a contractor to complete repair work.

Ray Pagel, Rehabilitation Section Manager, spoke about the Job Master Agreement Contract to utilize three contractors. Last year there was a \$25 million limit approved by the Board of Supervisors (BOS), for repairs with the CIP and rehabilitation programs. The majority of work completed is with the CIP that will be about \$20 million this year. The CCTV group lists what repairs are needed with pipes and its NASSCO condition. Blockages in the line are identified. The list is sorted by condition of the pipe (requiring immediate attention), line type, and the area. The high priority work generates a job work order and is assigned to a JOC contractor. The CCTV video is reviewed again to verify information. The Project Manager takes the information to work with the contractor. A rate book is used for a negotiated price with a contractor. The repairs are made and the capitalization is final. Other factors to consider is access to the location of where the work needs to be performed. The area might be located in a wash or a resident's backyard. There might need to be other people who need to get involved such as Community Relations when public notifications are required.

If the work to be performed is from \$200,000 - \$1 million, a bid tag process is used to select the lowest bidding JOC contractor. If a project is over \$1 million, then it must go out for bid. If a project is below \$200,000 no bid process is required. There is a priority system in place that utilizes eight or nine criteria. Mr. Warner added the rehabilitation program is very efficient. Last year they closed over 180 projects and spent all the money allocated to them. Mr. Rivera added the funding mechanism is sorted annually by \$10 million chunks for anticipated repair costs. The next few years are forecasted for budget needs. The total need for Fiscal Years 2017-2018 and 2018-2019 has been forecasted at \$23.5 million needed for pipeline repairs. Manhole repair costs are also identified. The budget forecast process is repeated annually. The higher priority projects needing immediate repairs are forecasted first. As the higher priority projects are complete, the lower priority projects are then moved up the list. A question arose what is the risk factor if the budget decreases from \$10 million to \$8 million per year. Mr. Warner responded there is a risk factor in maintaining the sewer system. Once a defect has been identified, funding and a plan are needed to repair it. Mr. Warner is a licensed operator of the sewer system in Pima County. This becomes a regulatory issue. Mr. Jenkins added it has been determined that the Department needs \$10 million per year to repair and maintain the sewer system and \$2 million per year for CCTV inspections. The Department is proactive to maintain the conveyance system, not reactive to repair. An example was the Speedway Sinkhole that cost the Department around \$25 million to repair. Mr. Rivera added there are 800 known deficiencies existing. There is a priority between repairs needed for an isolated area versus an urban area. If there is a low priority defect, but it is located in a high impact area, the priority jumps forward for this project. The cost of deferring repairs in the \$10 million, five-year plan are the highest risk elements that need to be addressed sooner. Mr. Jenkins added the \$10 million is for the sewer rehabilitation program, using JOC contractors. The NRI is a \$17 million project for a 10-mile stretch, through a CIP-bid process, and not through the JOC repairs program.



2. Charter Process

Don Willhoit, CIP Tracking Section, spoke on the Charter Process and used an example for the South Rillito Interceptor (SRI) Project. The CCTV group first identifies which projects need to be addressed. These projects are too big to handle with the JOC repair program. This process is required for larger projects greater than \$1 million, that can't go through JOC repair process. These projects can include: Supervisory Control and Data Acquisition (SCADA), utility coordination, Tres Ríos, water reclamation facilities, security, etc.

The Charter process includes a background of the project, benefits provided, justification, preliminary schedule, estimated costs and funding, financial schedule, prioritizing, map of area affected, stakeholders and resources, required signatures, and approval from a Deputy Director or higher. The SRI was not originally part of the Fiscal Year (FY) 2013/2014 budget. A memo was written by Mr. Jenkins, on up to John Bernal (Deputy County Administrator) to Chuck Huckelberry (County Administrator) for final approval. Since the SRI was not originally budgeted, other projects had to be pushed out further in the CIP budget schedule to move this one up in priority.

Once a project is completed, then a completed project report is provided to the Project Manager. The completed project report is submitted to the Finance and Risk Management Department (FRMD) and the project is closed. A CIP project must be over \$100,000, extend the life of an asset, or create a new asset.

The Project Prioritization Matrix, is the criteria that is used to rank projects. Each category has a weight value assigned to it, based on the criteria in the matrix. Projects are scored, ranked, and placed into a five-year CIP plan. The Department Director, Deputy Directors, and CIP Section Manager assign a score to various CIP projects on the list. Some CIP projects are set to close on June 30, 2016. This Project Prioritization Matrix is a tool used to know which projects can be moved out for low priority projects. The projects in the list are fluid. The minor rehabilitation projects are scheduled out on the CIP plan further out, some to the year 2022.

A question arose on the Speedway Augmentation, a County-funded project, which does not receive funding from another source or entity. Some projects are developer driven. An example of a developer-driven project is when a developer wants to build a housing project, and the Department does not have the capacity for it. In this instance, the Department asks the developer to help pay for the costs to add capacity. Mr. Jenkins added some projects are Board of Supervisors (BOS)-approved projects, such as the Aerospace Corridor project. This project is over \$45 million and is paced over several years. There are many influences involved in where to prioritize and schedule projects. There was some discussion regarding how the CIP budget affects user rates. What other funding sources outside the Department are available for projects. If other CIP projects further down the CIP five-year Plan can be moved up if other funding sources become available.

Mr. Jenkins stated that currently, the CIP budget has a target of \$45 million annually. Eventually this target may drop to \$30 million in future years. There is approximately \$1.2 billion of Department assets. A good rule of thumb is to spend 2.5% of the total asset amount on maintenance and augmentation.

Discussion arose regarding what happens to the debt ratio calculation and the impact if the annual CIP budget goes down without the additional proposed debt service associated with trying to support the CIP program,. Would reducing the CIP budget make a difference in assessing the need for a rate increase. The exercise was done before and the suggested scenarios indicated it did not make a big difference in the rates.

Mr. Warner provided clarification that a charter must be done for each individual project. Each project in the five-year CIP budget must be individually chartered. The JOC does not require a Charter process. Mr. Jenkins added that a Charter puts definition and scope to a project, formalities and a process in place. Earlier projects, such as the Randolph Park Water Reclamation Facility (WRF) and Regional Optimization Master Plan (ROMP) did not have a Charter written. The Charter process did not begin until 2007.

3. Tres Ríos vs. ROMP Program Projects

Jaime Rivera, CIP Section Manager, spoke on remaining projects from ROMP associated with the Tres Ríos WRF. ROMP's driving force was improving effluent standards and increasing capacity for a 2030 population. The ROMP project changed all treatment processes at the Tres Ríos WRF. Prior to the ROMP there were two separate plants at Tres Ríos; one that utilized



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a biological nutrient removal activated sludge process and the other a High Purity Oxygen process. With the upgrade an expansion of the plant, the new process being used is a BarDenPho treatment process. The upgrade at Tres Ríos included expanding the plant from 37.5 million gallons a day (MGD) to 50 MGD.

Maintenance and repair of existing systems and processes of the plant facilities were not a part of the ROMP upgrade and were not addressed. There are several maintenance and repair projects remaining that need to be prioritized. Once a project is identified by staff, a charter is written, and the project is placed into the future out years. As the need arises the project is prioritized. Examples include the installation of a sewage grinder to clean out solids that clog the pumps and pipes, replacing plastic influent screen teeth with a stainless steel version to fix the problem of teeth broken by rocks and other hard debris, and struvite deposits on bio-solids which clogs pumps and pipes.

A discussion followed on how much has been spent on the ROMP project. Mr. Jenkins stated that the ROMP was completed at \$583 million. The published cost to complete ROMP is \$605 million. The original ROMP budget was \$720 million. Some remaining ROMP projects were moved out of the ROMP budget and into the CIP budget. These projects were outstanding items at Tres Ríos that needed to be rehabilitated, which were not included as part of the ROMP. An example was the Tres Ríos Existing Infrastructure Upgrades project, which is around \$8 million. A question arose if the savings, \$115 million, from the original budgeted cost of \$720 million will be used to purchase bonds. Mr. Jenkins responded that the Department only sells bonds when the money is needed to pay for projects. The Department is now in the \$30-\$40 million a year spend rate, and is selling obligation bonds and some certificates of participation (COPS) as a financing mechanism to cover these costs. There were unforeseen issues with the ROMP design project not originally planned, that have been adding more additional costs. Investigations with the design issues are underway to determine the cause and responsible parties.

G. Future Agenda Items

Review of each project in the CIP Five-Year Plan, Review each project in the FY 2016/17 CIP Budget, Exercise in how reductions to the CIP budget affects the debt service ratio, Investigate alternatives of other funding sources for CIP projects.

H. Call to the Audience

Mark Taylor (RWRAC Chair) requested to have a recommendation from the CIP Sub-Committee ready by January 2016 on the FY 2016/17 budget provided to the Financial Sub-Committee. Look at regulatory requirements for the CIP process, as it relates to CMOM and/or as a Certified Operator of the Sanitary Sewer System in Pima County. Look at all aspects of the bond process for the Department.

I. Adjournment

Sheila Bowen made a motion to adjourn. Ann Marie Wolf seconded. Meeting adjourned at 10:30 a.m.

NEXT REGULAR MEETING DATE:

January 6, 2016

8:30 a.m.

Conveyance