

## **Report and Recommendations on Amending County Bond Ordinances County Bond Advisory Committee, March 20, 2009**

Ordinance No. 2009 - \_\_\_\_\_, Amending Ordinance No. 1997-80, the Bond Improvement Plan for the November 4, 2007 Special Bond Election (as amended by Ordinance No. 1998-59, adopted September 22, 1998, Ordinance No. 2001-112, adopted August 20, 2001, Ordinance No. 2004-118, adopted December 14, 2004, Ordinance No. 2005-90, adopted October 11, 2005, Ordinance No. 2006-20, adopted April 4, 2006, Ordinance No. 2006-83, adopted October 17, 2006, and Ordinance No. 2007-93, adopted November 6, 2007).

Ordinance No. 2009 - \_\_\_\_\_, Amending Ordinance No. 2004-18, the Bond Implementation Plan for the May 18, 2004 Special Bond Election (as amended by Ordinance No. 2005-92, adopted October 11, 2005, Ordinance No. 2006-21, adopted April 4, 2006, Ordinance No. 2006-84, adopted October 17, 2006, Ordinance No. 2007-33, adopted April 10, 2007, Ordinance No. 2007-95, adopted November 6, 2007, Ordinance No. 2008-25, adopted April 1, 2008, and Ordinance No. 2008-106, adopted November 18, 2008).

### **I. Background**

The County is currently implementing several bond programs: the May 20, 1997 General Obligation and Sewer Revenue Bond Program, the November 4, 1997 Highway User Revenue Fund (HURF) Transportation Bond Program, the May 18, 2004 General Obligation and Sewer Revenue Bond Program, and the May 16, 2006 General Obligation Bond Program. Pima County Code Chapter 3.06, the "Truth in Bonding" code, requires that bond ordinances be amended to reflect substantial modifications to bond-funded projects. The code defines what constitutes a "substantial modification," and when an amendment must be adopted in relation to actions of the Board that implement affected projects. The code also requires that amendments to bond ordinances be considered and adopted by the Board at public hearings, after advance public notice, and only after review by the County Bond Advisory Committee.

Recommended amendments to these bond programs include proposed changes to 3 projects from the November 4, 1997 Transportation Bond Improvement Program and 6 projects from the May 18, 2004 General Obligation and Sewer Revenue Bond Program. This is the 8th round of amendments for 1997 Transportation Bond Improvement Program and the 8th round of amendments to the May 18, 2004 General Obligation and Sewer Revenue Bond Program. The recommended amendments affect the following projects:

#### 1997 Transportation

DOT-10 La Cañada Drive, Ina to Lambert Lane  
DOT-37 Interstate 19 Northbound Frontage Road, Canoa TI to Continental TI  
DOT-47 Sunrise Drive, Craycroft Road to Kolb Road

#### 2004 GO/Sewer

2.3 Teresa Lee Health Clinic  
5.3 City of South Tucson Urban Drainage  
6.2 Misc. Conveyance System Rehab & Repair  
6.4 Roger Road WWTP to Ina Road WPCF Plant Interconnect  
6.11 Avra Valley BNROD Expansion  
6.12 Mt. Lemmon Sewer System

This report summarizes the ordinance amendment requirements of the Truth in Bonding Code and summarizes the recommended amendments by project. The three ordinances containing the recommended amendments, shown in legislative style, are attached.

## **II. Ordinance Amendment Requirements Per the Truth In Bonding Code**

Section 3.06.070 of Pima County's Truth in Bonding Code establishes procedures for making changes to a bond improvement plan ordinance. Recognizing that over time the availability of more detailed design and cost information, and changes in circumstances, often require changes in a bond improvement plan presented to the voters at the time of a bond election, Section 3.06.070 authorizes the Board to amend bond improvement plans to accommodate "substantial modifications" to projects. Substantial modifications are defined as:

1. An increase or decrease in total actual project costs by 25 percent or more
2. An increase or decrease in actual bond costs by 25 percent or more
3. An increase or decrease in actual other revenues by 25 percent or more
4. A delay in a project construction or implementation schedule of 12 months or more
5. A delay in the scheduled sale of bonds of 24 months or more
6. Any project that is not constructed
7. Any project that is added to those to be constructed
8. Any increase or decrease in the project scope that alters the disclosed project benefits
9. All changes to a bond implementation plan necessitated by only a portion of the proposed bond questions being approved at the special election

The required timing of an amendment varies based on whether the amendment impacts only funding, or other aspects of a project. Pursuant to the Code, the Board of Supervisors can authorize a substantial modification to the funding for a project on a de facto basis by awarding or amending a contract for the project that reflects that change in funding, while at the same time acknowledging that the action will require a future conforming amendment to the bond ordinance. In this situation, the amendment takes place after the Board takes action by awarding a contract. The reason for this is that amendments should not be based on cost estimates, and prior to the awarding of contracts or approval of purchase agreements, cost estimates may vary. For all other types of substantial modifications, an amendment of the bond ordinance is necessary before the modification is implemented.

The County Bond Advisory Committee is tasked with reviewing and making recommendations to the Board of Supervisors regarding all proposed bond ordinance amendments

## **III. Recommended Amendments**

In order to amend the bond ordinances, the Board will be asked to adopt a separate ordinance for each of the two affected bond programs. The two ordinances are attached to this report, with language that is being deleted shown in the "strike-out format" (~~example~~), while new language that is being added to the ordinances is underlined (example). Note that the titles of projects were originally underlined, and therefore this does not necessarily mean that the titles are changing. In this format, the ordinances only contain those projects that are being amended, and do not reproduce the entirety of each of the two bond ordinances.

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A brief description of the recommended ordinance amendments for each project is presented below.

**A. Recommendations for Ordinance Amendments Relative to the 1997 Transportation Improvement Program**

**DOT-10 La Cañada Drive, Ina to Lambert Lane**

A note was added to this project after the Regional Transportation Authority (RTA) Plan was approved by voters including this project as an RTA project. The note provided notice that a future ordinance amendment would be necessary because of the addition of funding to this project from the RTA. This ordinance amendment adds \$575,558 in bond funds to the project, restoring the original amount of bond funds in the amount of \$8,500,000 to the project. It also adds \$38,484,388 in other funding to the project from the following sources: RTA funds, Impact Fees, and Urban Highway User Revenue Funds. These additional funds will be used to construct the portion of La Cañada Drive from Ina Road to Calle Concordia, competing this project. This ordinance amendment also adds two implementation periods (2008 through 2012). Completion of the project was delayed because of lack of funding. Construction is scheduled to begin in late 2009.

**DOT-37 Interstate 19 Northbound Frontage Road, Canoa TI to Continental TI**

A note was also added to this project after the RTA Plan was approved by voters including this project as an RTA project. The note provided notice that a future ordinance amendment would be necessary because of the addition of funding to this project from the RTA. This ordinance amendment adds \$8,947,000 in other funding to the project from the following sources: RTA funds, Impact Fees, and Highway User Revenue Funds. These additional funds will be used to complete the project. This ordinance amendment also adds an implementation period (2010 through 2012). Completion of the project was delayed because of lack of funding. Construction is scheduled to begin in mid 2009.

**DOT-47 Sunrise Drive, Craycroft Road to Kolb Road**

This ordinance amendment will revise the scope of the project. Recent traffic studies have determined that two through travel lanes, versus four, with additional turn lanes, provided at intersections as needed, will provide sufficient capacity for the next twenty years. The intersection of Kolb Road and Sunrise Drive is being constructed in conjunction with bond project DOT-32 Kolb Road, Sabino Canyon Road to Sunrise Drive. Construction is scheduled to begin in late 2009.

**B. Recommendations for Ordinance Amendments Relative to the 2004 General Obligation and Sewer Revenue Bond Program**

**2.3 Teresa Lee Health Clinic**

As part of Rio Nuevo, the City will be constructing the extension of Cushing Street west over the Santa Cruz River, at the current location of the Teresa Lee Health Clinic. This 2004 bond project

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was to fund the relocation of this clinic, however the funding is insufficient and additional funds have been proposed for a future bond program. In the meantime the County needs to move the TB Clinic, currently located downtown in an office building at 150 W. Congress, to a facility that is more medically appropriate for the safety and health of staff and patients. This ordinance amendment proposes expending and estimated \$380,000 currently on hold for the Teresa Lee Clinic relocation, to move the TB Clinic to the Kino health campus adjacent to the Abrams Health Building. Construction on the remodel is scheduled for May 2009.

**5.3 City of South Tucson Urban Drainage**

This bond project included six drainage projects for the City of South Tucson. During the development of the concept design report for these six projects, it was determined that the estimated costs for constructing all six projects would be \$8,277,600. The 2004 bonds only provided \$1,719,000 in funding. This ordinance amendment would change the scope such that two of the projects would be design only, and one of the projects would include design and partial construction of a first phase. South Tucson is completing the design of the six projects. In Fiscal Year 2008/09 South Tucson constructed Project 2 for 26<sup>th</sup> Street drainage and Project 6 for all weather access at 7<sup>th</sup> Avenue and 34<sup>th</sup> Street. In Fiscal Year 2009/10 South Tucson plans to have design completed for all remaining projects and to construct the first phase of Project 5, which includes drainage improvements to direct flow from the Union Pacific culvert crossing to an existing detention basin.

**6.2 Misc. Conveyance System Rehab & Repair**

**6.4 Roger Road WWTP to Ina Road WPCF Plant Interconnect**

**6.11 Avra Valley BNROD Expansion**

**6.12 Mt. Lemmon Sewer System**

This ordinance amendment would exchange the use of sewer revenue bond funding with System Development funds for the above four wastewater reclamation facility and infrastructure projects. The intent of the amendment is to provide an improved cash flow for these four projects by reallocating bond funds to the most active project and reallocating other funds (primarily user fees known as System Development fees, to projects not needing those funds for a few years. In this case the most active project is the Avra Valley BNROD project (the wastewater treatment facility in Avra Valley). The amendment would reallocate bond funds totaling \$9.7 million from the other three projects to the Avra Valley project, and reallocate System Development funds totaling \$9.7 million from the Avra Valley project to the other three projects. The Avra Valley project is currently under construction, and scheduled to be completed this Fiscal Year.

**1997 HURF Bond**

## **ORDINANCE 2009-\_\_**

**AN ORDINANCE OF THE BOARD OF SUPERVISORS OF PIMA COUNTY ARIZONA RELATING TO HIGHWAY USER REVENUE FUND REVENUE BOND PROJECTS AMENDING ORDINANCE NUMBER 1997-80 (AS AMENDED SEPTEMBER 22, 1998 BY ORDINANCE NO. 1998-59 AND AUGUST 20, 2001 BY ORDINANCE NO. 2001-112 AND DECEMBER 14, 2004 BY ORDINANCE NO. 2004-118 AND OCTOBER 11, 2005 BY ORDINANCE NO. 2005-90 AND APRIL 4, 2006 BY ORDINANCE NO. 2006-20 AND OCTOBER 17, 2006 BY ORDINANCE NO. 2006-83 AND NOVEMBER 6, 2007 BY ORDINANCE NO. 2007-93) BOND IMPLEMENTATION PLAN, NOVEMBER 4, 1997 SPECIAL ELECTION, TO AMEND PROJECT SCOPES AND IMPLEMENTATION PERIOD SCHEDULES FOR SELECTED PROJECTS; AMENDING BOND SALES SCHEDULES.**

**WHEREAS**, the Board of Supervisors adopted Chapter 3.06 of the Pima County Code titled “Bonding Disclosure, Accountability and Implementation”; and,

**WHEREAS**, in compliance with Chapter 3.06, the Board of Supervisors adopted Ordinance Number 1997-80, the “Transportation Bond Improvement Plan, November 4, 1997 Special Election”; and,

**WHEREAS**, the Board of Supervisors, on September 22, 1998 enacted Ordinance Number 1998-59 and on August 20, 2001 enacted Ordinance Number 2001-112 and on December 14, 2004 enacted Ordinance Number 2004-118 and on October 11, 2005 enacted Ordinance Number 2005-90 and on April 4, 2006 enacted Ordinance Number 2006-20 and on October 17, 2006 enacted Ordinance Number 2006-83 and on November 6, 2007 enacted Ordinance Number 2007-93 amending Ordinance Number 1997-80 in compliance with provisions of Chapter 3.06; and,

**WHEREAS**, the Board of Supervisors desires to amend Ordinance Number 1997-80 (as amended by Ordinance Number 1998-59, Ordinance Number 2001-112, Ordinance Number 2004-118, Ordinance Number 2005-90, Ordinance Number 2006-20, Ordinance Number 2006-83, and Ordinance Number 2007-93) in compliance with provisions of Chapter 3.06:

**IT IS HEREBY ORDAINED by the Board of Supervisors of Pima County, Arizona:**

**10) DOT-10 - La Canada Drive, Ina Road to Lambert Lane**

NOTE: This project is now part of a Regional Transportation Authority (RTA) project. Amendments to scope, implementation periods, and funding may be necessary in the future.

Location: Oro Valley, Unincorporated Pima County

Bond Funding: ~~\$7,924,442~~ \$8,500,000

Scope: The proposed project consists of reconstruction and widening of La Canada Drive between Ina Road and Lambert Lane. Proposed cross section will include a raised landscape median, two travel lanes in each direction, multi-use lanes for transit and bicycle use, outside curbs and storm drains. Right-of-way will be improved with outside landscaping and noise mitigation where warranted.

Note: ~~The overall project design has been completed.~~ Construction of the Calle Concordia to Lambert Lane segment ~~has been~~ was completed in part with bond funds. The Ina Road to Calle Concordia segment will be constructed utilizing Regional Transportation Authority, Impact Fees and Urban Area HURF funding sources.

Benefit: The project will reduce congestion and enhance safety along La Canada Drive Avenue.

Other Funding: \$38,730,000 (~~245,612~~ 279,000 County HURF); ~~Regional Transportation Authority~~  
(5,400,000 Impact Fees)  
(22,500,000 Regional Transportation Authority)  
(10,551,000 Urban Area HURF 12.6%)

Implementation Period: 1/2/3/4/5/6/7

Future Annual Operating & Maintenance Costs: Town of Oro Valley Calle Concordia to Lambert – Town of Oro Valley Ina to Calle Concordia – Pima County \$35,000

**37) DOT-37 - Interstate-19 Northbound Frontage Road, Canoa TI to Continental TI**

NOTE: This project is now part of a Regional Transportation Authority (RTA) project. Amendments to scope, implementation periods, and funding may be necessary in the future.

Location: Unincorporated County (Green Valley)

Bond Funding: \$3,653,000

Scope: The proposed project is the construction of 1.2 miles of frontage road that were not built with the original I-19 construction. This segment of Frontage

Road crosses two major drainages; the Demitri and Esperanza Washes. These wash crossings will require bridge structures. The project will be a two-lane road with improved shoulders.

Benefit: The project will complete the linkages in the frontage road system from Continental Road south to Arivaca Junction and Arivaca Road. The Frontage Road will provide additional access and circulation opportunities for the southerly portion of the Green Valley community and will provide greater operational flexibility for I-19. The Frontage Road connection will also allow for a better balance of traffic demand between the southbound and northbound frontage roads south of Continental Road.

Other Funding: \$4,700,000 \$13,647,000 (~~2,200,000~~ 6,300,000 12.6% HURF)  
(~~2,500,000~~ 3,427,000 Impact Fees)  
(3,920,000 Regional Transportation Authority)

Implementation Period: 2/3/4/5/6/7

Future Annual Operating & Maintenance Costs: \$18,000

**47) DOT-47 - Sunrise Drive, Craycroft Road to Kolb Road**

Location: Unincorporated County

Bond Funding: \$23,322,000

Scope: The project will ~~widen~~ reconstruct Sunrise Drive to ~~four~~ two through travel lanes with multi-use lanes, drainage improvements, landscaping and neighborhood screening and noise mitigation as required. Additional lanes will be constructed at specific intersections and the construction will match the intersection improvements at Craycroft Road constructed with DOT-46. The intersection with Kolb Road will be completed as a part of this construction. The median treatment will be a raised landscape median at identified intersections with ~~or a median~~ two-way left-turn lane installed between the raised medians pending further evaluation of local area access and circulation requirements. The proposed project is intended to retain the existing outer limits of the cut and fill slopes along Sunrise Drive, therefore will incorporate structural retaining walls as necessary. Needed revisions or improvements to transverse drainage will be included with the project.

Benefit: The project will reduce congestion and enhance safety along Sunrise Drive. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$41.84 million. The benefit/cost ratio is 3.2:1.

Other Funding: \$0

Implementation Period: 6/7  
Future Annual Operating & Maintenance Costs: \$31,500



**AS AMENDED by the Board of Supervisors of Pima County, Arizona, this \_\_\_\_ day of \_\_\_\_\_, 2009.**

\_\_\_\_\_  
Chair, Pima County Board of Supervisors

Attest:

Reviewed by:

\_\_\_\_\_  
Clerk, Pima County Board of Supervisors

\_\_\_\_\_  
Pima County Administrator

Approved as to Form:

\_\_\_\_\_  
Civil Deputy County Attorney

## **2004 General Obligation and Sewer Revenue Bond**

ORDINANCE NO. 2009 - \_\_\_

**AN ORDINANCE OF THE BOARD OF SUPERVISORS OF PIMA COUNTY ARIZONA RELATING TO GENERAL OBLIGATION AND SEWER REVENUE BOND PROJECTS AMENDING ORDINANCE NUMBER 2004-18 BOND IMPLEMENTATION PLAN, MAY 18, 2004 SPECIAL ELECTION (AS AMENDED OCTOBER 11, 2005 BY ORDINANCE NUMBER 2005-92 AND APRIL 4, 2006 BY ORDINANCE NUMBER 2006-21 AND OCTOBER 17, 2006 BY ORDINANCE NUMBER 2006-84 AND APRIL 10, 2007 BY ORDINANCE NUMBER 2007-33 AND NOVEMBER 6, 2007 BY ORDINANCE NUMBER 2007-95 AND APRIL 1, 2008 BY ORDINANCE NUMBER 2008-25 AND NOVEMBER 18, 2008 BY ORDINANCE NUMBER 2008-106) FOR THE PURPOSE OF AMENDING THE SCOPE OF CERTAIN PROJECTS, AMENDING IMPLEMENTATION PERIODS FOR CERTAIN BOND PROJECTS, AND AUTHORIZING THE USE OF ADDITIONAL OTHER FUNDS TO FINANCE CERTAIN PROJECTS.**

**WHEREAS**, the Board of Supervisors adopted Chapter 3.06 of the Pima County Code titled "Bonding Disclosure, Accountability and Implementation; and

**WHEREAS**, in compliance with Chapter 3.06, the Board of Supervisors adopted Ordinance Number 2004-18, the "Bond Implementation Plan, May 18, 2004 Special Election;" and

**WHEREAS**, the Board of Supervisors, on October 11, 2005 enacted Ordinance Number 2005-92 and on April 4, 2006 enacted Ordinance Number 2006-21 and on October 17, 2006 enacted Ordinance Number 2006-84 and on April 10, 2007 enacted Ordinance Number 2007-33 and on November 6, 2007 enacted Ordinance Number 2007-95 and on April 1, 2008 enacted Ordinance Number 2008-25 and on November 18, 2008 enacted Ordinance Number 2008-106 amending Ordinance Number 2004-18 in compliance with provisions of Chapter 3.06; and

**WHEREAS**, the Board of Supervisors desires to amend Ordinance Number 2004-18 (as amended by Ordinance Number 2005-92, Ordinance Number 2006-21, Ordinance Number 2006-84, Ordinance Number 2007-33, Ordinance Number 2007-95, Ordinance Number 2008-25, and Ordinance Number 2008-106) in compliance with provisions of Chapter 3.06:

**NOW THEREFORE, IT IS HEREBY ORDAINED by the Board of Supervisors of Pima County, Arizona:**

Ordinance Number 2004-18 (as amended by Ordinance Number 2005-92, Ordinance Number 2006-21, Ordinance Number 2006-84, Ordinance Number 2007-33, Ordinance Number 2007-95, Ordinance Number 2008-25, and Ordinance Number 2008-106), is hereby amended as follows:

**Bond Implementation Plan  
May 18, 2004 Special Election**

**VII Specific Project Description, Scope of Work, and Location by Question and Project**

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**A. Question No. 2 - Public Health and Community Facilities**

**2.3 Teresa Lee Health Clinic and TB Clinic Relocation**

**Location:** Downtown area. The County owns property on West Congress Street and Linda Avenue. Additional clinic services site located on Kino Campus, East Ajo Way.

**Scope:** Construct a new public health clinic on County-owned property to house Health Department clinics. This new facility will replace the County's Theresa Lee Clinic, 322 South Freeway Drive, which has been identified as a critical component of the Rio Nuevo development and must be relocated. Relocation of Pima County Health Department TB Clinic to Kino Campus in existing facility adjacent to the Abrams Health Building.

**Benefits:** This project will benefit development of the Rio Nuevo program, ~~particularly the proposed science center.~~ Subject to approval, partnership with El Rio Clinic to improve and expand the El Rio Healthcare Campus, while assuring delivery of public healthcare functions currently provided at the Teresa Lee Health Clinic, will be continued. The TB Clinic relocation will provide public services adjacent to new Health Department services at the Kino Campus (Abrams Building) on East Ajo Way. The facility will provide a safer work environment for staff and patients providing a negative air system to the whole clinic. Current facilities have limited negative air capabilities not conducive to specialized clinic operations.

**Cost:** \$2,000,000, with Planning/Design being \$211,000, Construction being \$1,783,000, and Other being \$6,000.

**Bond Funding:** \$2,000,000

**Other Funding:** None identified at this time

**Project Duration:** Planning at 8 to 10 months, Design at 15 to 17 months, and Construction at 15 to 18 months. Multiple phased projects.

**Implementation Period:** 2, 3, 4

**Project Management:** Pima County Facilities Management

**Future Operating and Maintenance Costs:** No significant change in operating and maintenance costs expected since this project will replace the existing clinic.

## **E. Question No. 5 - River Parks and Flood Control Improvements**

### **5.3 City of South Tucson Urban Drainage**

**Location:** Various Locations in the City of South Tucson

**Scope:** (1) Design improvements to capture stormwater runoff from Rodeo Wash where it enters public right-of-way at South 4th Avenue and East 40th Street and convey the stormwater downstream in a storm drain system to South 10th Avenue and West 38th Street.

(2) Construct improvements to increase stormwater drainage capacity on South 4th Avenue at the alleyway between East 26th Street and East 27th Street to convey the flow to an existing storm drain under South 5th Avenue.

(3) Design improvements to increase drainage capacity at South 7th Avenue and West 28th Street and link with the existing stormwater drainage facility at West 26th Street.

(4) Design and construct improvements to increase drainage capacity from 25<sup>th</sup> Street and South 8<sup>th</sup> Avenue to South 10<sup>th</sup> Avenue and 25<sup>th</sup> Street. Provide a storm drain from West 35<sup>th</sup> Street into an existing storm drain under 10th Avenue.

(5) Design improvements to provide an underground storm drain connection between the culvert under the Union Pacific railroad tracks at East 32nd Street to connect to the downstream storm drain at South 3rd Avenue and East 32nd Street. Construct phase 1 of the project to connect flow from the Union Pacific railroad crossing into a downstream detention basin.

(6) Install a box culvert at the intersection of South 7th Avenue and West 34th Street. Eliminate repetitive flooding in streets by providing positive drainage. All projects pertain to improving drainage capacity and mitigating flooding and ponding problems associated with stormwater runoff in the City of South Tucson.

**Benefits:** Alleviate chronic flooding, protect residential and commercial development adjacent to river courses, and safeguard flood protection benefits provided by existing flood control facilities. This is a regional approach since 90 percent of flooding in South Tucson originates in the surrounding City of Tucson areas. Flood control improvements along major watercourses has removed the threat of flooding from the major rivers; however, residences and businesses remain subject to flood damages and are within federal floodplain hazard zones from tributary washes. This program would address flood hazards from the tributary flows. The flood control infrastructure supports the community goal for urban in-fill development and the Comprehensive Land Use Plan.

**Cost:** \$1,719,000, with Administration being \$12,800, Construction being \$1,390,000, Design being \$175,000, Planning being \$20,000, Public Art being \$16,200, Land acquisition being \$85,000, and Utility Relocation being \$20,000.

**Bond Funding:** \$1,719,000

**Other Funding:** None identified at this time

**Project Duration:** Estimated total duration to complete all six projects is six years. Projects will be staggered to reduce disruptions from construction work within roadways. Typical project duration is 30 to 48 months.

**Implementation Period:** 1, 2, 3, 4

**Project Management:** The City of South Tucson will manage design and construction, pursuant to an intergovernmental agreement between the Flood Control District and the City of South Tucson.

**Future Operating and Maintenance Costs:** Annual estimated costs of approximately \$17,000, which will be funded by South Tucson.

**F. Question No. 6 - Sewer System Revenue Bonds**

**6.2 Miscellaneous Conveyance Rehabilitation Projects**

**Location:** Projects are located throughout the Tucson Metropolitan Area

**Scope:** The current conveyance condition assessment projects - both the Closed Circuit TV (CCTV) and the Sanitary Sewer Inspection and Identification Program (SSIIP) - are identifying areas within the regional sewage conveyance system in need of repair, rehabilitation or replacement. It is estimated that re-lining will cost between \$200 and \$300 per linear foot to rehabilitate the larger sewers. These projects will be completed based on order of need identified by the CCTV and SSIIP evaluation projects. This funding will allow for the re-lining/replacement of approximately 5 to 6 miles of gravity conveyance lines and rehabilitation of miscellaneous associated siphon inlet and outlet chambers and manholes/junction chambers. The interceptors being examined include:

1. Santa Cruz Central; from 18th Street to Prince Road.
2. Santa Cruz East; from University Boulevard to Fort Lowell
3. Old Nogales Highway; from Hughes Access Road to Ajo Way
4. North Rillito; from Wentworth Road to Ina Road
5. Continental Ranch Pumping System; from Lambert Lane Alignment to Ina Road
6. Southeast Interceptor; from Rita Ranch to Franklin Street
7. Numerous Conveyance System siphon facilities including Alameda, Julian Wash, Tucson Boulevard at Rillito, Northwest Outfall, Golf Links, Sabino Creek, and Craycroft Road at Rillito
8. Carrillo Neighborhood Rehabilitation

The design will be done primarily by Wastewater Management engineering staff. The design, installation and/or required reconstruction work on conveyance system facilities will be achieved through several individual projects throughout the next 4 to 5 years.

**Benefits:** Recent experience indicates that unlined concrete sewer pipe, initially designed to last 50 years, may last only 35 to 40 years when high levels of hydrogen sulfide and corrosion are present. The Department is currently inspecting all unlined concrete pipe, as well as other older reaches of the system, in order to identify those sections of the system that have experienced deterioration and merit rehabilitation.

Planned rehabilitation of the interceptors will reduce the possibility of potential failures, and their associated liabilities, including environmental concerns and potential large regulatory fines. Emergency repairs cost 10 times more than planned repairs/rehabilitation.

Emergency and/or unscheduled maintenance costs average \$ 4,400/mile. After rehabilitation, preventive maintenance costs are \$2,000 per mile.

**Cost:** \$15,000,000, with Administration being \$300,000, Design being \$1,000,000, and Construction being \$13,700,000.

**Bond Funding:** ~~\$15,000,000~~ \$12,800,000

**Other Funding:** ~~None identified at this time~~ \$2,200,000 from System Development Funds

**Project Duration:** 8 years - The overall project includes identification and prioritization of reaches of interceptors requiring rehabilitation, specification of rehabilitation work, and construction. A typical interceptor rehabilitation schedule is: Design at 12 to 18 months and Construction at 12 to 24 months.

**Implementation Period:** 1, 2, 3, 4, 5, 6

**Project Management:** Pima County Wastewater Management Department

**Future Operating and Maintenance Costs:** In the first year after construction, the line is structurally under warranty. Operating and maintenance costs thereafter are approximately \$2,000 per mile. The costs are paid from Wastewater Management's budget, which is funded by user fees.

#### **6.4 Roger Road Wastewater Treatment Plant (WWTP) to Ina Road Water Pollution Control Facility (WPCF) Plant Interconnect**

**Location:** Within the corridor bounded on the west by Silverbell Road and on the east by Interstate-10 from Sweetwater Drive to Walker Road, as well as a location along the Rillito River between Campbell Road and Craycroft Road. Actual alignments will be determined by an initial project study.

**Scope:** Design, acquire easements and construct approximately 5 miles of sewer (gravity/pressure) and the associated wastewater pumping system (WWPS) and other system improvements needed to provide operational flexibility to treat tributary flows at either the Roger Road or the Ina Road treatment facilities.

The Plant Interconnect will provide the ability to divert part of the flow normally treated at the Roger Road Facility to the Ina Road Facility and vice-versa. This will allow de-activation of parts of either plant for repairs or maintenance; and allow the balancing of treatment demand with available plant capacity. Another integral component of the project is construction of a new WWPS positioned between Campbell and Craycroft, in combination with a force main crossing the Rillito River which will provide the ability/flexibility of routing flows - through the existing South Rillito interceptor/plant interconnect system - to the Ina Road Facility for treatment.

**Benefits:** This project was initially identified in the 1978 and 1990 Facility Plans as a future mechanism to assist in managing flows between the existing Ina Road and Roger Road treatment plants. A 12.5 mgd expansion is nearly complete at the Ina Road WPCF. The overall goal is to use available conveyance and treatment capacity at both WWTF's to maximize the efficiency of the sewerage system.

**Cost:** \$23,000,000, with Administration being \$460,000, Planning being \$200,000, Design being \$1,500,000, Right-of-Way being \$600,000, and Construction being \$20,240,000.

**Bond Funding:** ~~\$23,000,000~~ \$21,200,000

**Other Funding:** ~~None identified at this time~~ \$1,800,000 from System Development Funds

**Project Duration:** Right-of-way will be acquired concurrently with Planning, Design Procurement, and Design, with Planning at 2 to 6 months, Design at 19 to 24 months, Right-of-Way at 10 to 20 months, and Construction at 26 to 40 months.

**Implementation Period:** 1, 2, 3, 4

**Project Management:** Pima County Wastewater Management Department

**Future Operating and Maintenance Costs:** Costs for a new two-way pumped interconnect installation, with a pump station at each end, are estimated at approximately \$140,000 per month of actual operation. The costs are paid from the Wastewater Management budget, which is funded by user fees.

#### **6.11 Avra Valley BNROD Expansion**

**Location:** Avra Valley BNROD Facility, 10,000 West Snyder Hill Road

**Scope:** To assist in funding the design and construction of a new 4 mgd Biological Nutrient Removal Oxidation Ditch (BNROD) wastewater treatment facility.

**Benefits:** The increased treatment capacity will be available to meet the projected future demand for wastewater service due to the anticipated large population increase and will also produce high quality effluent. The effluent produces will be suitable for either reuse, recharge of environmental restoration in riparian areas.

**Cost:** \$54,322,782 Design being \$4,000,000, Land Acquisition being \$1,500,000 and Construction being \$48,822,782.

**Bond Funding:** ~~\$30,000,000~~ \$39,700,000 This includes the original \$4,000,000 for 6.11 Miscellaneous Water Reclamation Facilities, the original \$12,000,000 for 6.8 Ina Road WPCF Central Plant and Electric Upgrade and the original \$9,000,000 for 6.9 Ina Road WPCF Laboratory and Office Building and \$5 million from the Tanque Verde Interceptor project. The Ina Road WPCF funding is being reallocated to this project because it is expected that the Santa Cruz Basin Nitrification/DeNitrification Study recently begun will provide valuable new information that will impact the future planning for the Ina Road WPCF and the planned Central Plant and Electric Upgrade and the Laboratory and Office Building.

**Other Funding:** ~~\$24,322,782~~ \$14,622,782 (Additional System Development Funds and other funds)

**Project Duration:** Planning at 3 to 9 months, Design at 18 to 30 months, and Land Acquisition at 14 to 24 months.



**Implementation Period:** 1, 2, 3

**Project Management:** Pima County Wastewater Management Department

**Future Operating and Maintenance Costs:** There are no costs for this project until a WRF is constructed. Costs for a typical 4.0 mgd WRF with lift station are estimated at \$2 million per year. The costs are paid from Wastewater Management's budget, which is funded by user fees.

#### **6.12 Mt. Lemmon Sewer System**

**Location:** Village of Summerhaven along Sabino Canyon Parkway and immediate areas tributary to the existing sewer system.

**Scope:** To improve and expand the Mt. Lemmon WWTF and Effluent Disposal system in the area damaged in the Aspen Forest Fire of June/July of 2003 in order to better serve the needs of the greater Summerhaven area and to provide a source of reclaimed water for beneficial reuse, such as fire protection and subsequent recharge. Should this approval not be forthcoming, unneeded bond funds will be transferred to the Roger Road WWTP (Wastewater Treatment Plant) Infrastructure and Environmental Improvements Project for odor control mitigation purposes.

**Benefits:** Due to the extent of the Aspen Fire damage, and the anticipated rebuilding of the Summerhaven area, it may be necessary to reconfigure and expand the entire Mt. Lemmon public sanitary sewerage treatment system, including conveyance, treatment and effluent disposal/reuse systems. Initially the system was authorized to serve only 47 specific properties with the public sewer system and dispose of the correspondingly limited amount of effluent in a spray field to the San Pedro drainage. The impact of the fire and subsequent rebuilding of the Summerhaven area will result in a new master plan. There is also community interest in providing wastewater treatment for additional residential hook-ups in lieu of private septage disposal. The resulting development will require the expansion of the existing 12,500 gallon per day wastewater treatment facility, upgrade of the water quality treatment to meet environmental permits (AZPDES, APP and Reuse permits) and evaluation and siting of additional disposal areas.

**Cost:** \$7,200,000, with Administration being \$122,000, Planning being \$50,000, Design being \$400,000, Right-of-Way being \$500,000, and Construction being \$6,128,000.

**Bond Funding:** ~~\$7,200,000~~ \$1,500,000

**Other Funding:** ~~None identified at this time~~ \$5,700,000 from System Development Funds

**Project Duration:** Planning at 12 to 15 months, Design at 18 to 30 months, Land Acquisition at 13 to 26 months, and Construction at 24 to 36 months.

**Implementation Period:** 4, 5, 6

**Project Management:** Pima County Wastewater Management Department

**Future Operating and Maintenance Costs:** Costs are estimated at \$575,000 per year. The costs are paid from Wastewater Management's budget, which is funded by user fees.

**AS AMENDED** by the Board of Supervisors of Pima County, Arizona, this \_\_\_\_ day of \_\_\_\_\_, 2009.

\_\_\_\_\_  
Chairman of the Board of Supervisors

Attest:

Reviewed by:

\_\_\_\_\_  
Clerk of the Board of Supervisors

\_\_\_\_\_  
Pima County Administrator

Approved as to Form:

\_\_\_\_\_  
Civil Deputy County Attorney