



Large Diameter Water Pipe Rehabilitation Program

(P113803)

Category	WSSC	Date Last Modified	09/22/20
SubCategory	Water Bi-County	Administering Agency	W.S.S.C.
Planning Area	Countywide	Status	Planning Stage

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY20	Est FY21	Total 6 Years	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	Beyond 6 Years
Planning, Design and Supervision	58,129	-	6,587	51,542	8,110	8,049	8,417	8,872	8,824	9,270	-
Construction	413,644	-	35,228	378,416	47,962	56,836	64,600	67,186	69,868	71,964	-
Other	47,179	-	4,182	42,997	5,609	6,489	7,303	7,607	7,868	8,121	-
TOTAL EXPENDITURES	518,952	-	45,997	472,955	61,681	71,374	80,320	83,665	86,560	89,355	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY20	Est FY21	Total 6 Years	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	Beyond 6 Years
WSSC Bonds	518,952	-	45,997	472,955	61,681	71,374	80,320	83,665	86,560	89,355	-
TOTAL FUNDING SOURCES	518,952	-	45,997	472,955	61,681	71,374	80,320	83,665	86,560	89,355	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 22 Request	61,681	Year First Appropriation	FY11
Cumulative Appropriation	367,974	Last FY's Cost Estimate	489,509
Expenditure / Encumbrances	-		
Unencumbered Balance	367,974		

PROJECT DESCRIPTION

The purpose of this program is to plan, design and rehabilitate or replace Large Diameter Water Transmission Mains that have reached the end of their useful life. Condition Assessment and or corrosion monitoring is performed on metallic pipelines, including ductile iron, cast-iron and steel, to identify areas requiring replacement or rehabilitation. The PCCP Inspection and Condition Assessment Program identifies individual pipe sections that require repair or replacement for maintenance purposes to assure the continued safe and reliable operation of the pipeline. The program also identifies mains that require the replacement of an increased number of pipe sections in varying stages of deterioration that are most cost effectively accomplished by the replacement or rehabilitation of long segments of the pipeline for the entire pipeline. Rehabilitation or replacement of these mains provides value to the customer by minimizing the risk of catastrophic failure and ensuring a safe and reliable water supply. The Program includes installation of Acoustic Fiber Topic Monitoring equipment in order to accomplish these goals. *Expenditures for Large Diameter Pipe Rehabilitation Are Expected to Continue Indefinitely.

PROJECT JUSTIFICATION

Utility Wide Master Plan, (December 2007); 30 Year Infrastructure Plan (2007). Specific Date: WSSC has approximately 960 miles of larger diameter water main ranging from 16-inch to 96-inch diameter. This includes 350 miles of cast-iron, 225 miles of ductile iron, 35 miles of steel and 350 miles of PCCP. Of the 350 miles of PCCP, 150 miles are 36-inch and larger, and 55 miles or greater than 54-inch or larger. The inspection program includes internal visual and sounding, sonic/ultrasonic and electromagnetic testing to establish the condition of each pipe section and determine if maintenance repair, rehabilitation, or replacement are needed.

OTHER

The project scope was developed for the FY 2011 CIP and has a total project cost of \$60,000.00. Expenditures are schedule projections shown in Block B above are Order of Magnitude estimates and are expected to change based upon the results of the inspections and condition assessments. Additional costs associated with inspection/monitoring and emergency repairs are included in the operating budget.