



5 Year Capital Improvement Plan 2018 - 2023

City of Oakes, ND

Mayor: Monty Zimmer

Council Members:

Larry Engel; Art Conklin; Nathan O'Brien; Nick Harris; Jeff Forward; Kevin Ford

City Auditor: April Haring

Public Works Director: Pat Nelson

August 2017

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1.0 INTRODUCTION

This Capital Improvement Plan (CIP) has been prepared for the City of Oakes, North Dakota to identify infrastructure needs and discuss proposed improvements to the City's water, wastewater, drainage, and transportation systems. This CIP is general in nature and outlines basic information such as location, infrastructure deficiencies, proposed improvements, estimated project costs, projected year of construction, and possible funding sources for each capital improvement discussed.

2.0 PURPOSE OF A CIP

This CIP is intended to be utilized as a road map by City staff when planning for future improvements. A CIP is often times the first step in the planning stages of a project and a key component in schedule and financial planning. The City is not obligated to complete projects included in this CIP and it can be altered at any time. CIPs should be visited and updated on an annual basis in order to ensure the City has a current planning document in regards to its infrastructure system needs.

CIPs are conceptual in nature and are not intended to be a basis for design. Estimated costs and financing splits are planning level with the primary purpose of providing a means for demonstrating general project scale. As specific projects are to be considered in detail, a preliminary engineering report should be prepared to evaluate existing conditions in detail, specific design considerations and evaluate challenges. A preliminary engineering report will gather the information needed to provide more detailed and accurate cost estimates.

3.0 CIP PREPARATION

This CIP was prepared by staff from the City of Oakes with the assistance of Moore Engineering, Inc. Individuals from both entities met to identify infrastructure shortcomings and discuss conceptual improvements required to address such deficiencies. The various infrastructure needs and improvements were prioritized as presented within this document. Project prioritization is subject to change based upon feedback from the Mayor, Council, City Staff, and input from the public.

4.0 PROJECT FINANCING AND FUNDING

In the past, the City has financed Capital Improvement Projects with a combination of monies from the City's utility funds, special assessments allocated to benefitting properties, grants from local, state, or federal agencies, and general City funds. At this time, it is assumed that future capital improvement projects will be financed in a similar fashion.

The City has also been successful in minimizing project costs by securing low interest loan and grant dollars available for public infrastructure projects. It is recommended the City continue to seek such funds from programs including but not limited to the Public Facilities Authority, USDA Rural Development, Economic Development Authority, and the Small Cities Development Program which are administered by various state and federal agencies. It should be noted that the application process for many of these programs does take time and it is recommended that the City commence the application process for such programs years in advance of planned construction dates to ensure anticipated timelines can be met. Based on the amount of work completed in the past and success the City has had in securing funds from such programs it is advised that the City investigate and pursue funding for future projects.

5.0 PAST PROJECTS SUMMARY

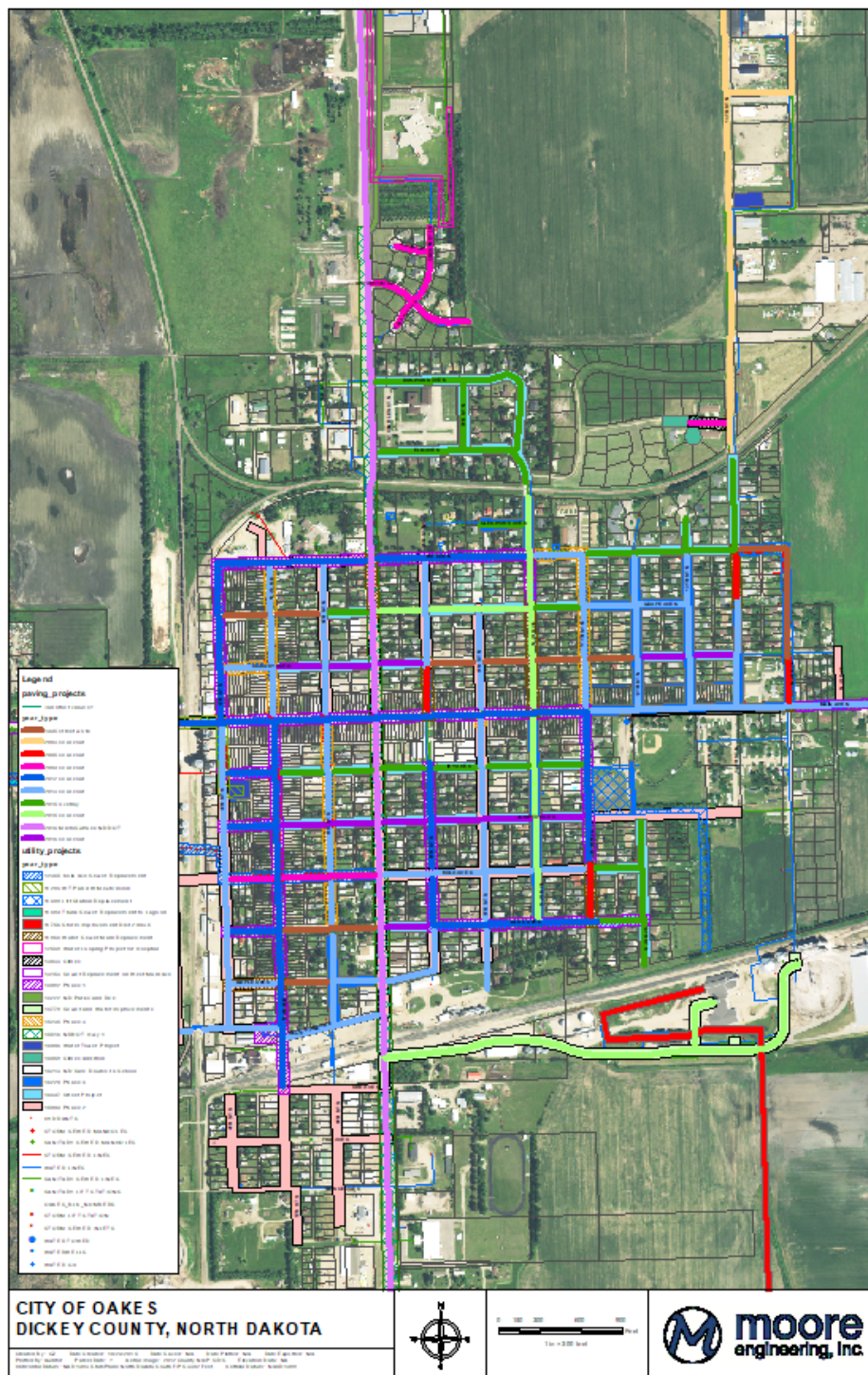
Table No. 1 is a listing of the completed projects since the 2002 Construction Season.

Table No. 1 – Completed Projects

PROJECT	GRANT	FINANCED	TOTAL	PAID THROUGH
2002 SANITARY MASTER LIFT		\$106,076.00	\$106,076.00	USER FEES
2003-1 & 2 SEWER IMROVEMENTS		\$685,350.00	\$685,350.00	TIF FUNDS
2003-5 PILOT DRAIN PROJECT		\$144,125.00	\$144,125.00	TIF FUNDS
2004-1 SANITARY SEWER IMPROVEMENT		\$432,375.00	\$432,375.00	USER FEES
2006-2 KOLA AVE IMPROVEMENTS		\$930,000.00	\$930,000.00	TIF FUNDS
2007-3 SEWER IMPROVEMENTS		\$228,747.00	\$228,747.00	USER FEES
2004-1 WATER IMPROVEMENT		\$140,652.00	\$140,652.00	USER FEES
2006-1 WATER SYSTEM IMPROVEMENTS		\$140,000.00	\$140,000.00	USER FEES
2006-1 WATER SYSTEM IMPROVEMENTS	\$1,625,000.00	\$3,490,000.00	\$5,115,000.00	USER FEES
2007-1 ROAD IMPROVEMENTS		\$350,000.00	\$350,000.00	TIF FUNDS
2003-3 & 4 STREET PROJECTS		\$415,000.00	\$415,000.00	TIF/ASSESS
2010-2 JVG/SDWG IMPROVEMENTS		\$1,342,350.00	\$1,342,350.00	TIF FUNDS
2009-2 PART C MAIN AVE IMPROVEMENTS		\$227,650.00	\$227,650.00	USER FEES
2009-2 PHASE 1 IMPROVEMENTS	\$2,200,000.00	\$2,770,000.00	\$4,970,000.00	ASSESS
2010-1 PHASE 2 IMPROVEMENTS	\$2,210,000.00	\$2,770,000.00	\$4,980,000.00	SALES TAX
2012-1 PHASE 3 IMPROVEMENTS	\$625,000.00	\$1,175,000.00	\$1,800,000.00	USER FEES
2012-2 PHASE 4 IMPROVEMENTS	\$1,426,000.00	\$1,774,000.00	\$3,200,000.00	ASSESS
2014-1 WATER TOWER IMPROVEMENTS		\$522,000.00	\$522,000.00	USER FEES
2014-1 WATER TOWER IMPROVEMENTS	\$826,000.00	\$522,000.00	\$1,348,000.00	USER FEES
2016-1 LAGOON IMPROVEMENTS	\$870,000.00	\$480,000.00	\$1,350,000.00	USER FEES
2016-2 MAIN LIFT STATION IMPROVEMENT	\$1,050,470.00	\$270,000.00	\$1,320,470.00	USER FEES
2011 BOND (ND Hwy 1 & Street Improvements 15% Gravel Drainage Improvement 60% Storm Recovery 25%)		\$620,000.00	\$620,000.00	USER FEES
2015-1 STREET IMPROVEMENT		\$2,015,000.00	\$2,015,000.00	ASSESS
2003 CITY POOL		\$930,000.00	\$930,000.00	SALES TAX

6.0 EXISTING INFRASTRUCTURE AGING

The City of Oakes has completed multiple reconstruction projects in recent history, however, there are a number of areas that will require review in future years. The map below indicates the age of streets within the City, utility construction has typically been completed at the same time of the street, if not in years prior to the original street construction.



7.0 PROJECT SUMMARY

Table No. 2 is a listing of the proposed projects contained within this CIP. The table includes estimated projects costs.

Table No. 2 – CIP Summary of Costs

Assume 3% Annual Increase in construction cost

Estimated Year Needed	Name of Project	Engineer's Opinion of Cost (2017 Dollars)	Engineer's Opinion of Cost in Future (Design Year Needed)
2019	Street Imp. Dist. 18-1	\$2,000,000.00	\$2,060,000.00
2019	Street Imp. Dist. 18-1	\$500,000.00	\$515,000.00
2020	Replace Street Lights Bulbs (LED)	\$500,000.00	\$530,450.00
2022	WTP Upgrades	\$1,500,000.00	\$1,688,263.22
2022	Sanitary Sewer Imp.	\$400,000.00	\$450,203.52
2022	Water Main Replacement	\$2,500,000.00	\$2,813,772.03
2023	Recreational Trail Extension	\$300,000.00	\$347,782.22
2023	Building Improvements	\$500,000.00	\$579,637.04

For more detailed project information, see the Project Worksheets.



Project Year

2019

Total Project
Cost

\$2,060,000.00

CAPITAL IMPROVEMENT PLAN

DURATION:

2018

(YEAR)

thru

2023

(YEAR)

PRIORITY:

HIGH

PROJECT NAME:

STREET IMPROVEMENT DISTRICT 2019-1

DESCRIPTION

Asphalt Rehabilitation on approximately 50 blocks of streets (Streets not addressed in 2015).

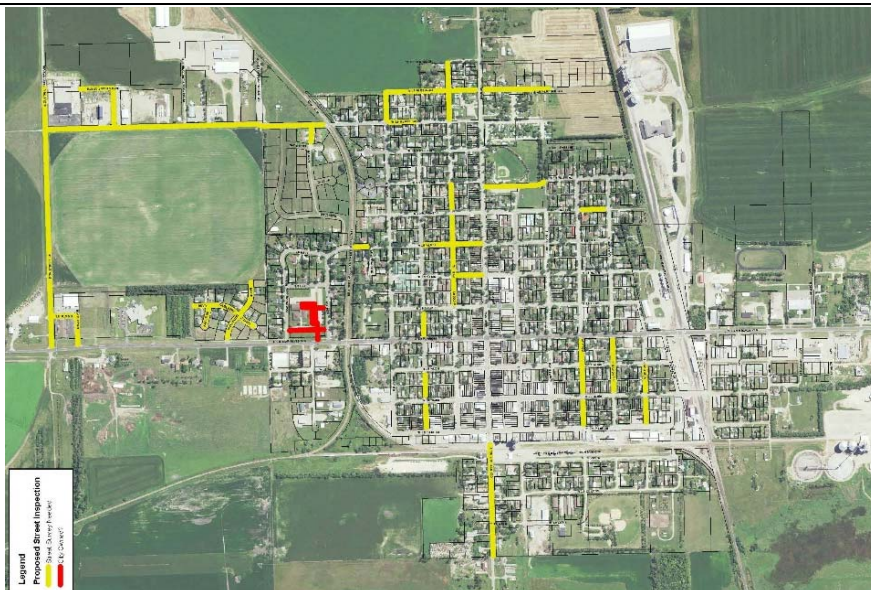
JUSTIFICATION

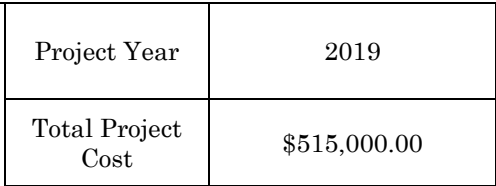
Age and use created damage, rather repair than do major reconstruct project.

PROJECT FINANCING

ITEM	GRANT FUNDS	FINANCING	TOTAL
Special Assessment			
TOTAL			

LOCATION MAP





DURATION:	<u>2018</u> (YEAR)	thru	<u>2023</u> (YEAR)	PRIORITY:	HIGH
PROJECT NAME:	STREET IMPROVEMENT DISTRICT 2019-1				

Chip Seal all streets replaced in 4 Phase Sewer/Water Project (1/2 of City)
(orange and tan on map below, last sealed in 2012 & 2013)

Extend life of streets

ITEM	GRANT FUNDS	FINANCING	TOTAL
Special Assessment			
TOTAL			

[illegible]



Project Year

2020

Total Project
Cost

\$530,450.00

CAPITAL IMPROVEMENT PLAN

DURATION:

2018

(YEAR)

thru

2023

(YEAR)

PRIORITY:

LOW

PROJECT NAME:

STREET LIGHT IMPROVEMENT

DESCRIPTION

Replace street light bulbs with LED, Citywide.

JUSTIFICATION

Energy Savings

PROJECT FINANCING

ITEM	GRANT FUNDS	FINANCING	TOTAL
Sales Tax?			
TOTAL			

LOCATION MAP





Project Year

2022

Total Project
Cost

\$1,688,263.22

CAPITAL IMPROVEMENT PLAN

DURATION:

2018
(YEAR)

thru

2023
(YEAR)

PRIORITY:

HIGH

PROJECT NAME:

WATER TREATMENT PLANT UPGRADES 2022-1

DESCRIPTION

Improvement Project to replace Electrical Controls, Pumps, Valves, RO Skids, Piping, Misc Equipment

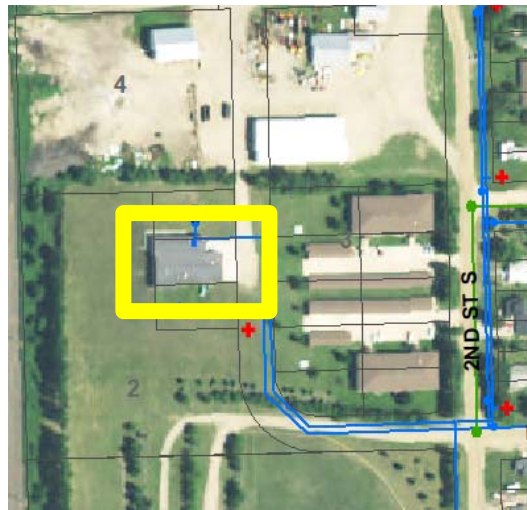
JUSTIFICATION

Plant is 15 years old

PROJECT FINANCING

ITEM	GRANT FUNDS	FINANCING	TOTAL
User Fees			
TOTAL			

LOCATION MAP





Project Year	2022
Total Project Cost	\$450,203.52

CAPITAL IMPROVEMENT PLAN

DURATION: 2018 (YEAR) thru 2023 (YEAR) **PRIORITY:** HIGH

PROJECT NAME: SANITARY SEWER IMPROVEMENTN 2022-2

DESCRIPTION

Install cured-in-place pipe (CIPP) lining in remaining VCP Sanitary Sewer Mains and Service Lines, 8+ blocks

JUSTIFICATION

Improvement to lengthen life of system

PROJECT FINANCING

ITEM	GRANT FUNDS	FINANCING	TOTAL
User Fees			
TOTAL			

LOCATION MAP





Project Year

2022

Total Project Cost

\$2,813,772.03

CAPITAL IMPROVEMENT PLAN

DURATION:

2018

(YEAR)

thru

2023

(YEAR)

PRIORITY:

MEDIUM

PROJECT NAME:

WATER MAIN REPLACEMENT 2022-3

DESCRIPTION

Replace remaining Asbestos Cement Pipe Water Mains (Estimated 20 Blocks)

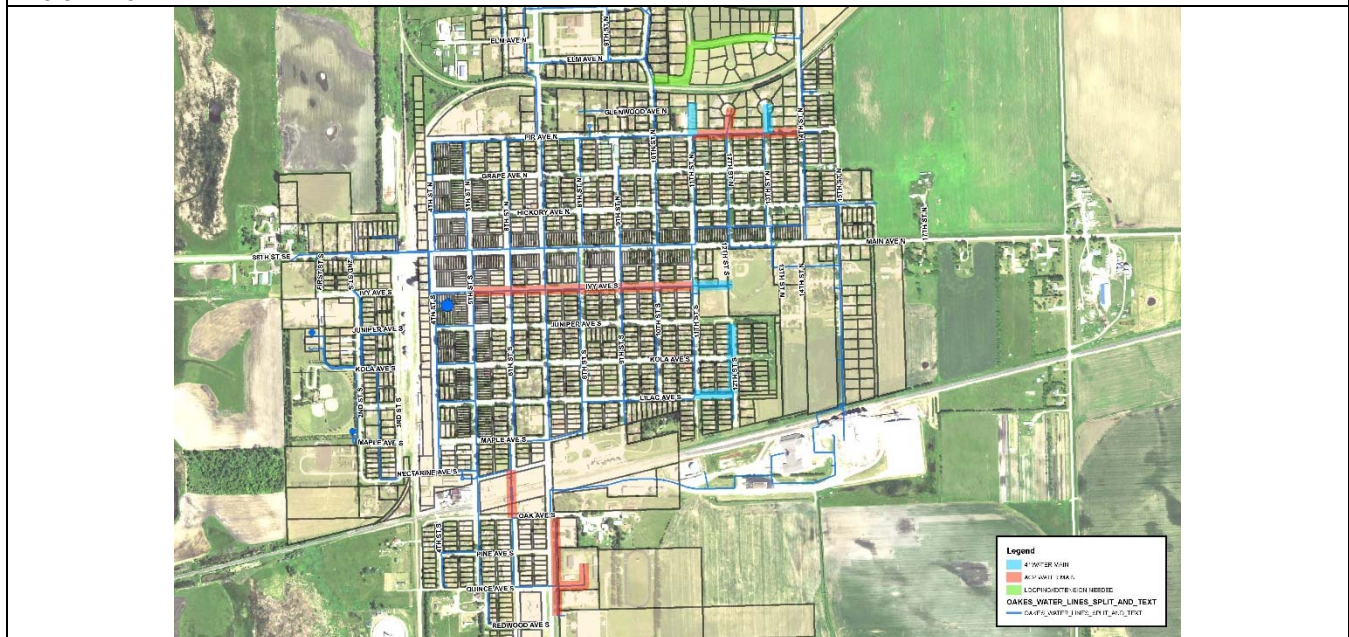
JUSTIFICATION

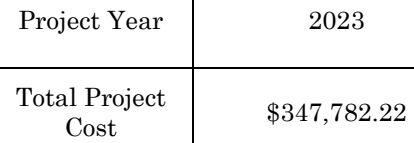
Improvement to lengthen life of system

PROJECT FINANCING

ITEM	GRANT FUNDS	FINANCING	TOTAL
User Fees			
TOTAL			

LOCATION MAP





DURATION:	<div><div>2018</div><div>(YEAR)</div></div>	thru	<div><div>2023</div><div>(YEAR)</div></div>	PRIORITY:	LOW
PROJECT NAME:	RECREATIONAL TRAIL EXPANSION				

Improvement Project extend shared use pedestrian trails (Golf Course, Loop north of Hospital, Softball Complex, Etc).

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PROJECT FINANCING			
ITEM	GRANT FUNDS	FINANCING	TOTAL
TOTAL			

Not Applicable, need to determine location



Project Year

2023

Total Project
Cost

\$579,637.04

CAPITAL IMPROVEMENT PLAN

DURATION:

2018

(YEAR)

thru

2023

(YEAR)

PRIORITY:

LOW

PROJECT NAME:

BUILDING IMPROVEMENTS

DESCRIPTION

Upgrades to City buildings especially renovation of Old Armory and Gymnasium Roof Replacement

JUSTIFICATION

PROJECT FINANCING

ITEM	GRANT FUNDS	FINANCING	TOTAL
TOTAL			

LOCATION MAP

Not Applicable

8.0 FUTURE PROJECT SUMMARY

Table No. 3 is a listing of the proposed projects to 2045. The table includes estimated projects costs.

Table No. 3 – Future Summary of Costs

Estimated Year Needed	Name of Project	Brief Description of Project	Rank	Opinion of Cost in Future
2024	Street Imp. Dist. 24-1	Chip Seal all streets completed in 2015 and 2018 Street Projects (1/2 of City)	High	\$597,026.15
2024	Street Imp. 24-2	Pave all Gravel Streets (South and West Sides of City)	Low	\$2,388,104.59
2025	Lagoon Imp. Project	Repair erosion areas on Lagoon Cell Dikes, dredge sludge from cell bottoms	Medium	\$1,475,848.64
5/1/2026	Project 2011 PAID	Current estimated user fees \$30,000		
9/1/2027	Project 2007-3 PAID	Current estimated user fees \$15,000		
2027	Well Imp.'s	Replace Controls, New pumps/motor, chemical cleaning of well screens, pig raw water transmission lines (3 wells).	High	\$260,954.64
2028	Lift Station Imp.'s	Replace Controls, motors, pumps, coatings in manholes, full rehab. (6 Lift Stations)	High	\$806,349.83
2030	Lighting & Signal Imp. Project	Replace Downtown Street Lighting, Highway 1 Lighting, Traffic Signal, Miscellaneous City Owned Lighting (20 years old)	Low	\$712,880.44
2030	Street Imp. Dist 2030-1	Asphalt Rehabilitation (mill and overlay, chip sealing) on 120 blocks of Streets installed in 4 phase project in '09-/13	High	\$7,128,804.43
2031	Sewer, Water, Street Ext.	Develop 20+ lots for Housing	Medium	\$734,266.86
2033	Street Imp. Dist 2033-1	Asphalt Rehabilitation (mill and overlay, chip sealing) on 50 blocks of Streets last overlayed in 2018	High	\$3,115,934.83
2033	Railroad Crossing Improvements	Upgrade 7 at-grade railroad crossings - Install Concrete crossings. Install crossing arms. (Seek cost share from RR)	High	\$2,336,951.12
2035	Water Tower Rehabilitation Project(s)	Rehabilitation Projects on both towers to replace coatings (20+ years old).	High	\$1,322,278.11
2035	Water Meter Repl. Project	Replace Water Meters, Billing Software, Equipment	High	\$413,211.91

2036	Re-Development	Redevelop blighted areas of the Community. Emphasize economic development in downtown, increase development in low density areas.	Medium	\$5,107,299.18
9/1/2038	Project 2006-1 WTP PAID	Current estimated user fees \$195,000		
2039	Street Imp. 39-1	Chip Seal all streets (combine two separate projects)	High	\$1,860,294.57
2039	Sidewalk Repl. Project	Replace deteriorated sidewalks, ADA Ramps, Install missing pieces of sidewalks in public right-of-way. (20 years since last project)	Low	\$930,147.29
9/1/2040	Project 2009-2 Phase 1 PAID	Special Assessment		
2040	WTP Upgrades 22-1	Major Water Treatment Plan Replacement Project (WTP is 35 years old)	High	\$15,328,827.27
2040	Lagoon Imp. Project	Reconstruct Miscellaneous Lagoon Cell Dikes, dredge sludge from cell bottoms	Medium	\$2,299,324.09
8/1/2014	Project 2010-1 Phase 2 PAID	Current estimated user fees \$50,000 (Plus Sales Tax)		
6/4/2042	Project 2012-1 Phase 3 PAID	Current estimates user fees \$100,000		
2042	Well Imp's	Replace wells, buildings, controls, etc. (3 Wells)	High	\$2,439,352.93
2043	Lift Station Imp.	Replace Sanitary and Storm Sewer Lift Stations (6 Lift Stations)	High	\$5,025,067.03
3/1/2044	Project 2012-2 Phase 4 PAID	Special Assessment		
2045	Street Imp. 2045-1	Rehabilitation all streets (planned M&O project)	High	\$22,212,890.06