FINAL REPORT

2011 Capital Improvement Plan Update

Goleta West Sanitary District (GWSD)

April 2011

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Section 1
Introduction

1.1 Introduction

The Goleta West Sanitary District (GWSD) retained CDM, Inc. in January 2011 to update the Capital Improvement Plan (CIP) completed by CDM as part of the GWSD Wastewater Master Plan in 2007. The purpose of this CIP update is to analyze the sewer collection system including gravity sewers, pump stations, force mains, and manholes, as well as to address other facility, vehicle, operation and maintenance needs in the future. CDM completed a review and evaluation of the existing master plan and other unmet GWSD needs to develop this comprehensive plan for the GWSD.

1.2 Background

The Isla Vista Sanitary District was formed in 1954 to serve the needs of the growing area of Isla Vista. In January 1990, the name was changed to Goleta West Sanitary District. The GWSD is located to the west of the City of Santa Barbara and serves the City of Goleta and unincorporated areas of Santa Barbara County.

In the late 1950's, over five miles of sewer lines were installed in the Isla Vista area using assessment bonds. Issuing general obligation bonds financed the balance of the system such as force mains and pumping stations.

The GWSD is connected to the regional treatment plant in the area, which is owned and operated by the Goleta Sanitary District (GSD). Use of the GSD treatment plant is through a joint use agreement for treatment and disposal. The GWSD's capacity rights in the GSD treatment plant has expanded, from 5% in the 1950's to 40.78% today, to meet GWSD needs.

As subdivisions expanded the service area the developers installed and paid for the sewer system expansions. The GWSD currently serves over five thousand four hundred service connections, a wastewater collection system including gravity lines, manholes, pump stations, and force mains. Most GWSD sewer lines are made of vitrified clay pipe (VCP), and diameters range from 6 to 33 inches with the majority of lines consisting of 8-inch diameter pipe. The GWSD commenced providing street sweeping service for public roads in the service area through a contract in October 1963. The GWSD brought the street sweeping activity "in house" in 1968 with the purchase of a unit and additional staff.

For wastewater treatment the collected wastewater is pumped to the Goleta Sanitary District treatment plant, treated, and disposed of through an ocean outfall in the Santa Barbara Channel. Goleta West Sanitary District also serves one area outside the service boundary known as the Embarcadero Municipal Improvement District (EMID) through a service contract.

The GWSD is interested in upgrading and improving its Capital Improvement Plan (CIP) to accomplish the following goals and objectives:

- Provide an assessment of the existing facilities condition which would include improvement needs over the next 5-10 years
- Determine the useful life of existing facilities
- Maintain compliance with State of California Waste Discharge Requirements to have an up to date CIP
- Accomplish the continuing goal of proactive planning for future system and facility needs. Provide an updated CIP

Work performed in recent years such as the 2007 Master Plan has been very helpful to the GWSD's planning. The GWSD felt a need to continue staying current and up-to-date with its planning tools. CDM reviewed and analyzed the following available documents during the preparation of the CIP update:

- Sewer Master Plan – Prepared by CDM, who evaluated the adequacy of the existing sewer facilities, identified future needs and recommended improvements, dated 2007
- GWSD Capital Facilities and Financial Plan, Black & Veatch 2003

The GWSD intends to evaluate the current and future facility rehabilitation and replacement needs for all its capital facilities. Following this CIP update the GWSD plans to receive long-term financial planning recommendations to accomplish its goals.

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Section 2
Collection System Assessment

The GWSD currently operates and maintains a wastewater collection system including gravity pipelines, manholes, pump and lift stations, and force mains. The collection system contains over 62 miles of sewer pipelines primarily made of VCP, with some PVC, HDPE, DIP and ACP. Pipe diameters range from 6 to 33-inches, the majority of which are 6 and 8-inches in diameter. Additionally, there are approximately 1,350 manholes made of reinforced concrete, with some brick manholes. Force mains consist of 9,500-foot long 18-inch and 24-inch pipelines made of ACP and DIP. Emily force mains consist of 2000 ft. long 8 inch pipelines one made of combination of PVC and ACP and the other one is HDPE.

The collection system also contains one main pump station (Pump Station #1) at the main facility located at Parking Lot 32 on the University of California, Santa Barbara (UCSB) campus and one field lift station (Emily) located at 8200 Calle Real -- Emily serves the Embarcadero Municipal Improvement District (EMID) and the San Miguel neighborhood of the City of Goleta. Pump Station #1 pumps all the collected wastewater to the treatment plant. Pump Station #2 was decommissioned in 2006. The collected wastewater is treated at the treatment plant and disposed of through an ocean outfall.

According to the GWSD's Master Plan (2007), the pipe sizes and estimated total length of the pipes in the GWSD collection system are as shown in Table 2-1.

Table 2-1
Inventory of Pipe Materials and Diameters within GWSD(1)

Diameter	Length of Pipe (LF)								
	Pipe Materials							Totals	
	HDPE	ACP	CIP	PVC	STL	VCP(2)	DIP	Grand Total	% of Total
6			83	3,248	482	55,684		59,497	18%
8	2,000(3)	2,800		27,530		144,111		176,441	52%
10				601		19,819		20,420	6%
12				4,963		23,711		28,674	9%
15				5,614		7,198		12,812	4%
18		8,700		734		8,362		17,796	5%
20				1,487				1,487	0%
24		287		472		7,318	8,700	16,777	5%
30						717		717	0%
33						2,499		2,499	1%
Grand Total	2,000	11,787	83	44,649	482	269,419	8,700	337,120	
% of Total	1%	4%	0%	13%	0%	79%	3%		

(1) Data taken from 2007 Master Plan by CDM and rehabilitation updated to include Phases 4 and 5
(2) Approximately 68,100 feet of pipe has been lined over the last 7 years, the majority of which was VCP pipe
(3) Sliplined existing 14 inch pipe

2.1 Pipelines

The primary objectives of the 2003 pipeline condition assessment and the 2007 Master Plan included evaluating the structural integrity as well as the hydraulic adequacy of the sewer system. Ultimately, a pipeline condition assessment serves to establish priorities for rehabilitation or replacement.

2.1.1 Pipeline Condition

The pipeline internal inspection videotapes, log sheets, and still photographs were thoroughly examined and evaluated in 2003. Pipeline condition was assessed utilizing a four-category rating system for each pipeline. Since 2003 the GWSD has rehabilitated all pipes that had a rating requiring rehabilitation which totals more than 68,000 feet. Since the condition assessment in 2003 GWSD has maintained a schedule of CCTV inspection that inspects approximately 12.5 miles of pipeline per year to identify any other pipes in need of repair.

Since all the pipelines identified have already been rehabilitated, the critical issue now is service connections. Recent GWSD CCTV inspection reports show that the previously rehabilitated line segments are susceptible to root intrusion between the lining material and the host pipe at the service connection. This fact is shown to be true regardless of the lining technology in place. The GWSD should plan on upgrading and rehabilitating service connections with "Top Hat" style service connection rehabilitation material which are estimated to cost approximately $250,000 per year over the next five years. This will address the root intrusion problem and all service connections in previously rehabilitated pipes will be in good condition after five years.

The 2007 Master Plan identified sewers that either had flat or negative slopes and did not have adequate hydraulic capacity to meet GWSD standards as shown in the Hydraulic Capacity Upgrade List - Table 2-2 below. Some of the 2007 recommended projects have been completed. The 2007 hydraulic analysis identified projects 3-10 as being required due to the scenario "Isla Vista master plan 6". These projects should be looked at on a case by case basis as actual development plans are confirmed for the Isla Vista area.

These pipelines need to be included in the Capital Improvement Program over the next 5-10 years as follows:

Table 2-2
Pipelines Hydraulic Capacity Upgrade List

Project	Location	Exist Diam	New Diam	Length (ft)	Estimated Cost	d/D	Priority
1	Truck line Phelps Rd	24	15-27	6,500	$4,700,000	0.44-1.0	1
2	Truck line to Pump Station along Mesa Rd	33	42	3,000	$8,500,000	0.47-1.0	2
3	Embarcadero Del Mar	6	8	247	$90,000	1.0	1
		6	12	246	$115,000		
		8	15	1,498	$825,000		
4	El Greco Rd east of Camino Pescadero	6	8	140	$50,000	0.67	3
5	Picasso Rd west of Embarcadero Del Norte	6	12	279	$125,000	1.0	2
6	El Colegio Rd east of S Los Carneros Rd	6	8	295	$105,000	0.53-1.0	1
		6	12	500	$225,000		
		8	12	512	$235,000		
		10	15	512	$260,000		
		15	18	494	$300,000		
7	Embarcadero Del Norte between El Greco Rd and El Colegio Rd	6	8	240	$85,000	0.68-1.0	1
		6	12	326	$150,000		

Table 2-2
Pipelines Hydraulic Capacity Upgrade List

Project	Location	Exist Diam	New Diam	Length (ft)	Estimated Cost	d/D	Priority
8	El Embarcadero Rd between El Nido Ln and Del Playa Dr	6	8	134	$50,000	0.55	3
9	Sabado Tarde Rd east of El Embarcadero Rd	6	8	350	$125,000	0.65	2
10	Del Playa Dr between El Embarcadero Rd and Camino Del Sur	8	12	1,149	$520,000	0.5-0.53	3

2.1.2 Manhole Condition

Manholes are an integral part of any sewer system and they provide the principal means of access for maintenance and rehabilitation of the pipelines. Manholes are mainly rehabilitated or replaced to stop infiltration and inflow (I/I), root intrusion, restore or renew the various manhole components, address safety related issues, and conduct maintenance. Routinely an agency like GWSD will find a certain percentage of manholes in need of rehabilitation.

The GWSD should plan to rehabilitate up to $50,000 in manholes each year for the next 5 years.

2.1.2.1 Applicable Manhole Rehabilitation and Repair Techniques

The applicable manhole rehabilitation and repair techniques are shown in Table 2-3.

Table 2-3
Applicable Manhole Rehabilitation and Repair Techniques

Manhole Rehabilitation Techniques (Structural)	Manhole Repair Techniques
Cast-in-Place Concrete	Chemical Grouting
Cast-in-Place Concrete with Lining	Chemical Coating
Cured-in-Place Liner	General Spot Repairs
Formed-in-Place Liner	Root Control

2.1.3 Force Main Condition

The force mains from the main pump station are installed in an environmentally sensitive area. Therefore, it is critical that the GWSD monitor the condition of their force mains to ensure that there will be no sewer spills. To address this issue, the GWSD decided to conduct a comprehensive inspection program in 2002 for the twin force mains. The inspection was conducted to determine the structural integrity of the existing force mains and to identify localized and segmental defects throughout the force mains and the need for rehabilitation. Access points were built at strategic locations, inspection was completed on some of the footage, then the rest of the pipes are concluded to be in similar condition. Based on field experience pipes can normally be assumed to be in equal condition for their entire length.

2.1.3.1 Force Mains Condition Assessment

18-inch ACP Force Main

The inspection of the 18-inch ACP force main was conducted in 2002 for a total length of 2,527.7 linear feet. The inspection revealed that the 18-inch ACP force main is in good condition.

24-inch DIP Force Main

The inspection of the 24-inch DIP force main was conducted in 2002 for a total length of 2,366.5 linear feet. The scanning revealed that the 24-inch DIP force main is in good condition

Force Main Needs

The GWSD should not need to rehabilitate any force mains for the next five years. Another inspection should be conducted in the future to confirm the conditions found in the previous inspection.

2.2 Pump Stations

The pump stations and force mains are in good condition and Pump Station No. 1 pumps were recently updated to new grinder pumps. Emily was also recently upgraded.

It is recommended that the GWSD set aside $10,000 per year for routine Pump Station capital upgrades.

Section 3
Building Assessment

3.1 Structural Assessment of District Buildings

This section provides the historical structural evaluation result for the buildings of the GWSD, located at the UCSB Campus, Lot 32, Santa Barbara, California. The purpose of the evaluations was to determine if obvious undesirable structural or life-safety issues are present at the property.

3.2 Findings

GWSD is located at UCSB Campus, Lot 32, Santa Barbara, California. On this property, there are five separate buildings:

- Old pump house & its addition
- Control Building/Pump Station Number 1
- Break Room/Office/Garage Building
- Old Pump Station Number 2/Generator Room/Storage room
- Vehicle Maintenance Shop/Vactor Garage

Each of the buildings were constructed at separate times. The findings for each building are listed below:

3.2.1 Building Description

3.2.1.1 Old Pump House and its Addition

The Old Pump House, located at the south/west corner of the property, was built in 1956. Originally, it consisted of a 15-foot long x 10-foot wide x 24-foot deep, underground wet well/pump room, and a 15-foot long x 13.5-foot wide x 8-foot high, one-story above-grade motor room. The underground wells have since been backfilled and the motor room has been converted to office space and storage.

The structural system of the underground wells consist of an 18-inch thick reinforced concrete (RC) foundation mat, 12-inch to 14-inch thick RC exterior walls, 12-inch to 14-inch thick RC interior wall, and an 8-inch thick RC top slab at grade level.

The gravity resisting system of the motor room consists of 8-inch thick concrete masonry unit (CMU) walls and a wood framed roof. The CMU walls appear to be reinforced with vertical rebar at 24-inch on-center (o.c.), with horizontal reinforced bond beam around the perimeter at roof level. The wood frame roof consists of straight wood sheathing, supported by 2x6 joists at 24-inch o.c. The joists are supported on 2-2x10 interior beams and exterior CMU walls.

The addition, located adjacent to the east side of motor room, was approximated to have been built in early 1961. It is a 6-foot, 8-inch long x 5-foot, 4-inch wide x 7-foot, 4-inch high CMU and RC structure. The addition was originally designed for housing the liquid level control equipment; it is now being used as storage space. The structural system of the addition consists of 2-foot x 8-inch thick continuous footing on the south side, an 8-inch thick RC slab on grade, 8-inch thick CMU exterior walls, and an 8-inch RC roof. The CMU walls are reinforced with #4 at 24-inch o.c. vertical rebar and reinforced bond beam at roof level.

The lateral resisting system of both the pump house and the addition are composed of the wood roof diaphragm and CMU shear walls.

3.2.1.2 Control Building/Pump Station Number 1

Control Building and Pump Station Number 1, located at the west side of the property, were both built in 1964. Originally, they consisted of a 26-foot in diameter x 30-foot deep circular underground wet well/pump room, and a 94-foot long x 23-foot wide x 14-foot high one-story above grade structure. The Control Building holds the shower/locker room, conference room, general office, manager's office, and restrooms. Pump Station Number 1 functions as the main pump station in GWSD. The Control Building serves as GWSD's administration office, of which, the original chlorination room and vehicle storage have been converted to office space, a storage room and the conference/board room respectively.

The structural system of the underground wells consist of an 18-inch thick circular RC foundation mat, a 12-inch thick circular RC wall around the perimeter, a 12-inch thick RC division wall between wet well and pump room, and a 6-inch thick RC top slab at the grade level.

The gravity resisting system of the Control Building consists of continuous RC footing, CMU walls, and a wood framed roof. The CMU walls are reinforced with #4 at 16-inch o.c. vertical rebar and #4 at 24-inch o.c. horizontal rebar, all CMU cells are grouted, and sit on RC continuous footings. The wood framed roof consists of ½-inch plywood sheathing supported by 2x8 at 16-inch o.c. joists running in north/south direction. The joists are supported by 16-feet spaced 5-inch x 14 5/8-inch laminated beams running in east/west direction. The laminated beams are supported by the east side and west side CMU walls. All edges of the plywood sheathing are blocked.

The lateral resisting system is composed of the roof plywood diaphragm and the CMU shear walls.

3.2.1.3 Break Room/Office/Garage Building

Break Room/Office/Garage Building is adjacent to the east side of the old pump house. It is estimated that it was built between the late 1960's and early 1970's.

The structural system appeared to be similar to the Control Building's, i.e., continuous RC footings, CMU walls, and wood roof diaphragm.

3.2.1.4 Old Pump Station Number 2/Generator Room/Storage Room:

These three structures are located on the east side of the property. The Old Pump Station Number 2 and the Generator Room were built in 1978, separated from each other with an 8-foot wide space. This 8-foot space was later covered with a roof and north and south CMU walls to create the Storage Room.

The Old Pump Station Number 2 consists of a 34-foot long x 41-foot wide x 35-foot deep underground wet well/pump room, and a 22-foot long x 41-foot wide x 18-foot high one-story above grade motor room, currently housing the emergency transfer switchgear, Edison power entry into the facility and electric meter. The generator room is a 15-foot long x 23-foot wide x 18-foot high one-story above grade structure for housing the emergency generator.

The structural system of the underground wells consist of a 3-foot thick RC foundation mat, 3-foot thick RC perimeter walls, a 2-foot thick RC interior division wall, an RC top slab at the grade level, and 2 intermediate levels of steel framed platforms for maintenance access.

The gravity resisting system for both motor room and generator room consists of 8-inch CMU walls and a wood framed roof. The CMU walls are reinforced with #4 at 24-inch o.c. vertical rebar and #5 at 32-inch o.c. horizontal rebar; all CMU cells are grouted. The wood framed roof consists of ½ -inch plywood sheathing, 2x8 at 24-in o.c. wood joists, and 12-inch deep steel beams spaced at 14-foot o.c. to support the wood joists.

The lateral resisting system is composed of the plywood roof diaphragm and the CMU shear walls.

3.2.1.5 Vehicle Maintenance Shop & Vactor Garage

The Vehicle Maintenance Shop and Vactor Garage are adjacent to each other at the north east of the property.

According to the GWSD, the Vehicle Maintenance Shop was built in 1981, and the Vactor Garage was built in 1986.

The structural system of both buildings appear to be solid grouted CMU walls with wood framed roofs.

3.2.2 Building Conditions

Generally, all buildings appeared to be in good condition in 2007. All structural elements appeared to be intact and to have been maintained appropriately. A few areas of damage were found. Some of the items have already been addressed. Items still needing attention are as follows:

3.2.2.1 Old Pump House and its addition

- A wide gap was observed at the wall joint between the Old Pump House and its addition.

3.2.2.2 Control Building/Pump Station Number 1

- In the control room of Pump Station Number 1, a differential settlement was observed at the slab on grade; the slab bounded by the circular edge of the underground pump station appeared to be higher than the adjacent slab. Per GWSD, this ground settlement occurred during an earthquake in the 1970's.
- In the control room of Pump Station Number 1, the anchor bolts of laminated beam seat are bent.
- In the control room of Pump Station Number 1, a crack was noted at the CMU wall on the west side at the infill wall corner.

3.2.2.3 Old Pump Station Number 2/Generator Room/Storage Room

- A crack was seen on the wall at the junction between the Old Pump Station Number 2 and the Storage Room.

3.2.3 Potentially Hazardous Conditions

Based on review of the Map of Known Active Fault Near-Source Zones, the property is located within 2 miles of Mission Ridge-Arroyo Parida-Santa Ana Fault and within 2 miles of Santa Ynez Fault (west segment). Both faults have the potential to cause an earthquake, the magnitude of which could reach 6.9 on the Richter Scale.

Based on screening the evaluation list of FEMA310, the potential hazardous conditions identified are listed below:

3.2.3.1 Old Pump House and its Addition

- The CMU wall is not anchored to the roof diaphragm.

3.2.3.2 Control Building/Pump Station Number 1

- In the control room, the CMU wall is not anchored to the roof diaphragm.
- In the control room, the hung ceiling is not properly laterally restrained.
- At the pump room, the walkway bridge lacks appropriate horizontal bracing.

3.2.3.3 Old Pump Station Number 2/Generator Room/Storage Room

- In the Storage Room, the mezzanine level is not independently supported and braced.

No geotechnical report was available for review. However, based on the location of the site, the signs of differential settlement that have occurred at the Control Building, and discussion with the GWSD, it is possible that the property is located in a zone susceptible to liquefaction.

3.2.4 Disability Access Conditions

Since the administration office is the only area subjected to public access on this property, the disability access evaluation was conducted in this area only. The evaluation identified that neither restroom meets the current disability access standard (CSAS).

3.3 Summary and Recommendations

A. ***In order to meet the CSAS, we recommend that one of the restrooms be modified. This cost is added to the cost estimate for upgrade of the administrative facilities.***

B. ***In order to meet the Life Safety Level of current seismic design standards, we recommend:***

   - ***At the Control Building, add a diagonal wire to restrain the ceiling.***
   - ***At the Control Building, add CMU wall anchors at the roof level.***
   - ***At the Pump Station #1, add horizontal bracing at the walkway bridge.***
   - ***At the Storage room, add independent vertical and lateral supports.***
   - ***At the control room of the Control Building, conduct a detailed review of the anchor beam support and provide remedy resolution as required.***

C. ***It is recommended that a geotechnical engineer conduct a site-specific geotechnical investigation to verify the possibility of the liquefaction of the site and its potential threat to life during an earthquake.***

D. ***It is recommended that a structural engineer conduct a more detailed evaluation of the Break Room/Office/Garage Building and Vehicle Maintenance Shop/Garage.***

It is estimated that the site-specific geotechnical investigation and more detailed evaluation of the Break Room/Office/Garage Building and Vehicle Maintenance Shop/Garage would have an additional cost of approximately $20,000.

It is recommended that an upgrade to the control building be completed. This upgrade will allow the facilities to meet the needs of current staff, Board of Directors and existing regulations. The GWSD

should initiate a Facility Needs study of the upgrades that could be made to facility to ensure long term best use.

Since the GWSD decommissioned the Old Pump Station Number 2, the GWSD should complete a space optimization study that can determine a good and long term use for this building that is currently underutilized.

3.4 Mechanical Assessment of GWSD Buildings

3.4.1 Pump Stations

Pump Station Number 1 is a wet/dry well of circular cast-in-place concrete construction, located in the south end of the Control Building. Original construction of this facility dates back to 1963 with pumps, piping and valves added in 1994. The structure is 22-feet in internal diameter with a concrete baffle wall segmenting mechanical equipment from incoming raw sewage.

The pumps in Pump Station Number 1 were recently upgraded. No mechanical upgrades are needed over the next 5 years.

Emily was also recently upgraded and will not need any new improvements over the next 5 years.

3.5 Electrical Assessment of GWSD Buildings

3.5.1 Administration Building

Fluorescent lighting fixtures in the administration building are type T12. Although not visually observed, the ballast for these fixtures is more than likely magnetic in type, this fluorescent fixture type has been used in all pump stations and buildings.

3.5.1.1. Recommendation

Retrofitting to type T8 fluorescent lamp fixtures with electronic ballasts is recommended for all buildings and pump stations. These fixtures can save up to 30% in lighting energy demand. It is estimated that all buildings could be upgraded for around $20,000.00.

Section 4
Vehicles and Other Depreciable Assets

4.1 Vehicles

CDM worked with the GWSD to update Table 4-1 below which indicates the replacement sequence for vehicles over the next 5 years and beyond:

Table 4-1
Vehicle and Equipment Replacement Schedule

Vehicle	Date Purchased	Initial Value	Added Features (after Delivery and Value)	Current Mileage or Condition	Replacement Value	Projected Replacement Date (10 years or 100,000 miles*)
1969 GMC Water Truck	1969	$ 13,756	Water Tank & Valving	10,459 mi	$ 50,000	2020
1988 Ford Flat Bed F-350	Dec-87	$ 14,699	Flat Bed, Hydraulics and Crane $10,000	29,507 mi	$ 60,000	2015
2008 Prius	Apr 08	$ 23,771		9,816	$ 30,000	2018
2003 Street Sweeper	Nov. 02	$ 174,442	-	8,111 hrs	$ 200,000	2012
2007 Chevrolet Silverado	June 07	$32,457		32,288 mi	$ 40,000	2017
2011 Ford Fusion Hybrid	Dec 10	$ 30,000	-	2,920 mi	$ 32,000	2019
2011 Vactor Freightliner	June 11	$ 350,000		N/A	$ 375,000	2021
2000 Chevy Pickup	Mar-00	$ 17,818	-	58,453 mi	$ 25,000	2012
5130 Case Tractor	Nov-90	$ 44,979	-	2111 hrs	$ 80,000	2020
2003 CCTV Van	July-03	$ 114,348		7277 mi	$ 180,000	2013
Subtotal		$ 609,461			$ 889,000	

Section 5
Office Equipment

Table 5-1 indicates existing equipment and replacement needs over the next five years.

Table 5-1
Office Equipment

Office Equipment	Date Purchased	Initial Value	Replacement Value as percentage of Initial Value	Replacement Value (applied 60-100% of Initial value to obtain Replacement value)	Date of Projected Replacement
H2OMAP Sewer	10/2006	$ 5,378	100%	$ 6,600	2012-2016
Kyocera KM-C3232 Copier	12/19/2006	$ 17,000	100%	$ 15,000	2012-2016
Autodesk Map Guide 6.5 Server	2/14/2003	$ 4,021	100%	$ 3,000	2012-2016
HP 755CM Color Inkjet Plotter	3/15/2001	$ 5,150	75%	3,900	2012-2016
Dell File Server	8/02/2006	$ 8,070	80%	$ 7,800	2012-2016
Dell File Server (used as terminal server)	6/05/2001	$ 5,226	80%	$ 4,200	2012-2016
Subtotal		$ 44,845		$ 40,500	

Section 6
Miscellaneous Equipment

Table 6-1 indicates existing miscellaneous equipment and replacement needs over the next five years.

Table 6-1
Miscellaneous Equipment

Miscellaneous Equipment	Date Purchased	Initial Value	Replacement Value (Inflated Initial Value by 30% to Obtain Replacement Value	Date of Projected Replacement
Miscellaneous < $4,000	Various	$ 36,845	$ 47,900	2012-2016
Office furniture	Various	$ 12,812	$ 16,700	2012-2016
Mobile Radios	Various	$ 6,110	$ 7,900	2012-2016
Subtotal		$ 55,767	$ 72,500	

Section 7
Wastewater Treatment Plant Upgrade

The GSD is currently upgrading the WWTP and the GWSD will need to provide their share of the expense of this upgrade as discussed below. Total project costs provided by GSD are as follows:

PCL Construction Bid (February 2011)	$28,623,477
Construction Management Services (Dudek)	$2,298,600
Construction Office Engineering Services (HDR)	$1,000,000
General Administration and Permit Compliance	$500,000
Construction Contingency	$5,702,011

Since the GWSD will be participating in this WWTP upgrade, it is required to fund 40.78 percent of the total cost. Table 7-1 indicates cost share for GWSD of $15,547,003.00 broken down over the next few years. Total project costs values are shown below:

Table 7-1
GSD Wastewater Treatment Plant Upgrade Cost Share

Timeframe	GWSD Cost
June 2011	$1,088,290
December 2011	$3,109,401
June 2012	$4,664,101
December 2012	$4,042,221
July 2013	$2,642,990
TOTAL	***$15,547,003***

Section 8
2011 Capital Improvement Plan Update Summary

Table 8-1 indicates the estimated costs and approximate expenditure expectancy for 2011-2021.

Table 8-1
Estimated Costs and Approximate Expenditure Expectancy 2011-2016

Type of Work	Estimated Cost	When Needed
Pipeline and Manholes	$ 18,010,000	Next 5-10 Years
Structural/Architectural	$ 1,000,000	Next 5 Years
Electrical	$ 250,000	Next 5 Years
Wastewater Plant	$ 15,547,000	Next 5 Years
Vehicles	$889,000	Next 5-10 Years
Office & Miscellaneous Equip.	$ 113,000	Next 5 Years
TOTAL	***$ 35,809,000***	