

**Santa Clarita Water Division FY 2011/12 Capital Improvement Program**

**Capital Expenditure Summary**

Prior Years SCWD Capital Carry-Forward:	\$ 1,608,596
COP Capital Project Carry-Forward:	1,746,033
Expansion Capital Project Carry-Forward:	124,992
FY 2011/12 SCWD Capital Projects:	4,345,580
FY 2011/12 COP Capital Projects:	86,236
FY 2011/12 Expansion Capital Projects	127,000
<b>FY 2011/12 Total:</b>	<b>\$ 8,038,437</b>

	Prior Years	FY 2010/11	FY 2010/11	FY 2010/11	FY 2011/12
Category	Carry-Forward	Budget	Estimate	Carry-Forward	Budget
Capital Improvement Projects	\$ 3,717,175	\$ 1,806,540	\$ 2,331,524	\$ 2,220,351	\$ 563,236
Repair and Replacement Projects	367,608	2,946,477	2,238,408	841,270	2,510,580
Capital Planning, Studies and Administration	-	100,000	35,000	65,000	-
Capital Equipment	2,121,051	612,600	2,273,723	353,000	1,485,000
<b>Total Capital Projects</b>	<b>6,205,834</b>	<b>5,465,617</b>	<b>6,878,655</b>	<b>3,479,621</b>	<b>4,558,816</b>
Less COP Capital Projects	(2,751,002)	(1,111,540)	(1,795,000)	(1,746,033)	(86,236)
Less Expansion Capital Projects	(882,326)	-	(757,334)	(124,992)	(127,000)
<b>Total SCWD Capital Projects</b>	<b>\$ 2,572,506</b>	<b>\$ 4,354,077</b>	<b>\$ 4,326,321</b>	<b>\$ 1,608,596</b>	<b>\$ 4,345,580</b>

Santa Clarita Water Division Capital Fund Summary	FY 2011/12 Beginning Balance	FY 2011/12 Additions	FY 2011/12 Use of Funds	FY 2011/12 Ending Balance
Expansion Fund	\$ 1,298,370	\$ -	\$ (251,992)	\$ 1,046,378
COP Fund	10,397,650	-	(1,832,269)	8,565,381
CIP Fund	4,674,247	1,523,468	(5,954,176)	243,539
<b>Total Fund Balance</b>	<b>\$ 16,370,267</b>	<b>\$ 1,523,468</b>	<b>\$ (8,038,437)</b>	<b>\$ 9,855,298</b>

Expansion  
COP

	Prior Years (FY 2009/10 and prior)	FY 2010/11 Budget	FY 2010/11 Estimated	FY 2010/11 Carry-Forward	FY 2011/12 Budget
<b>Capital Improvement Projects</b>	Carry-Forward	Itemized	Estimated	Carry-Forward	Itemized
<b>Wells</b>					
Central Park Well Design and Construction (was terminated in FY 2010/11)*	849,355	-	199,024	-	-
Alluvium Well					127,000
Saugus Formation Well	97,492	-	7,500	89,992	-
<b>Infrastructure</b>					
New Administration Building	1,756,509	210,000	1,645,000	-	-
Warehouse Upgrades		565,000	200,000	365,000	350,000
<b>Pressure Regulating Stations</b>					
Honby to Bouquet Regulation Station		50,000	50,000	-	-
Bakerton #2 Regulation Station		80,000	80,000	-	-
<b>Reservoirs</b>					
0.5 MG Seco Tank	45,082	551,540	100,000	496,622	-
3.0 MG Catala Tank	879,147	250,000	25,000	1,104,147	-
3.5 MG Friendly Valley Tank	70,264	100,000	25,000	145,264	86,236
3.0 MG Deane Tank	14,933	-	-	14,933	-
2.5 MG Placerita Tank	4,393	-	-	4,393	-
<b>Total Capital Improvement Projects</b>	<b>\$ 3,717,175</b>	<b>\$ 1,806,540</b>	<b>\$ 2,331,524</b>	<b>\$ 2,220,351</b>	<b>\$ 563,236</b>

\* Original COP Funds of \$975,000 to be transferred to the New Administration Building (\$147,061) and the 3.0 MG Catala Tank (\$827,939).

	Prior Years (FY 2009/10 and prior)	FY 2010/11 Budget	FY 2010/11 Estimated	FY 2010/11 Carry-Forward	FY 2011/12 Budget
<b>Repair and Replacement Projects</b>	Carry-Forward	Itemized	Estimated	Carry-Forward	Itemized
<b>Wells</b>					
Clark Well	-	30,000	30,000	-	-
Well Repair/Upgrade per Arc Flash Analysis					75,000
Chlorinators X 2		50,000	49,728		
Chlorinators X 3					80,000
<b>Meters</b>					
Sand Canyon Meter Panel Replacement	-	40,000	40,000	-	-
Royal Oaks Meter Relocation	-	30,000	30,000	-	-
<b>Pressure Regulating Stations</b>					
Live Oak Springs Canyon and Saddleback Road Upgrade	-	-	-	-	42,000
Vault and Lid Replacement	-	-	-	-	20,000
<b>Booster Pumps</b>					
Pump Station Repairs/Upgrade per Arc Flash Analysis	-	-	-	-	75,000
SC-1 Panel Replacement	-	-	-	-	160,000
Princess Pressure Station	-	-	-	-	17,000
Ranch View Pressure Station	-	-	-	-	10,000
<b>Reservoirs</b>					
Honby 4 MG Tank Interior Recoat (replaced North Oaks #2 Recoat)	-	370,000	370,000		
Friendly Valley #2 Tank Interior Recoat	-	240,000	240,000		
Honby Tank Road Rehabilitation	-	500,000	100,000	400,000	
Sky Blue North 2 MG Tank Interior Recoat	-	-	-	-	370,000
Copper Hill 2 MG Tank Exterior Recoat	-	-	-	-	142,000
North Oaks 3 MG Tank Interior Recoat	-	-	-	-	370,000
<b>Programmed Pipeline and Service Replacement</b>					
Service Line Replacement Program	(132,833)	500,000	357,153		500,000
Seco Canyon Pipeline Replacement Phase I	(29,778)	368,900	321,788		
Seco Canyon Pipeline Replacement Phase II	(10,135)	599,000	599,000		
Fitch Avenue Bridge Rebuild	-	158,400	-	158,400	
Centurion Pipeline	-	-	5,727	(5,727)	130,727
Copperhill Pipeline	-	-	-	-	275,000
Bouquet Tank Pipeline	-	-	-	-	115,200
<b>Distribution Pipelines and Hydraulic Improvements</b>					
Knochaven Drive	151,397	-	10,000	141,397	55,153
Alderbrook Drive	-	-	-	-	73,500
Sierra Highway 10-inch main upgrade	-	60,177	75,012		
Iron Canyon	388,957	-	10,000	147,200	-
<b>Total Repair and Replacement Projects</b>	<b>\$ 367,608</b>	<b>\$ 2,946,477</b>	<b>\$ 2,238,408</b>	<b>\$ 841,270</b>	<b>\$ 2,510,580</b>

Expansion  
COP

	Prior Years (FY 2009/10 and prior)	FY 2010/11 Budget	FY 2010/11 Estimated	FY 2010/11 Carry-Forward	FY 2011/12 Budget
<b>Capital Planning, Studies and Administration</b>	Carry-Forward	Itemized	Estimated	Carry-Forward	Itemized
Arc Flash Analysis		100,000	35,000	65,000	
<b>Total Capital Planning, Studies and Administration</b>	\$ -	\$ 100,000	\$ 35,000	\$ 65,000	\$ -

	Prior Years (FY 2009/10 and prior)	FY 2010/11 Budget	FY 2010/11 Estimated	FY 2010/11 Carry-Forward	FY 2011/12 Budget
<b>Capital Equipment</b>	Carry-Forward	Itemized	Estimated	Carry-Forward	Itemized
<b>Meters</b>					
Automated Meter Reading	736,493	-	736,493	-	875,000
<b>Office Equipment</b>					
Cannon IR 3480i Copier/Scanner					
GIS (Master Plan and Data Collection)	42,426	-	7,426	35,000	-
Expansion Project Amount	42,426	-	7,426	35,000	-
Subtotal GIS	84,852	-	14,852	70,000	-
<b>Computer Software</b>					
Utility Billing and Customer Information System		300,000	17,000	283,000	100,000
<b>Transportation Equipment</b>					
Five Trucks 3/4 Ton Replacement					200,000
One Crew Cab Truck with Utility Bed Replacement					85,000
Three Trucks 3/4 Ton Replacement		109,100	109,100		
Dump Truck		76,000	42,500		
Utility Bed for Pumper Truck					
Basket for Crane		9,500	8,250		
Pool Vehicle Replacement		40,000	3,450		45,000
<b>Communications Equipment</b>					
Automation Upgrades - SCADA	557,298	-	557,298	-	30,000
Expansion Project Amount	742,408	-	742,408	-	-
Subtotal Automation Upgrades - SCADA	1,299,706	-	1,299,706	-	30,000
<b>Power Operated Equipment</b>					
Two Generators					150,000
Electronic Magnetic Meter		10,000	10,000		
Valve Exercising Equipment		8,000	8,000		
Vacuum Trailer		60,000	24,372		
<b>Total Capital Equipment</b>	\$ 2,121,051	\$ 612,600	\$ 2,273,723	\$ 353,000	\$ 1,485,000

<b>Total Capital</b>	\$ 6,205,834	\$ 5,465,617	\$ 6,878,655	\$ 3,479,621	\$ 4,558,816
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Expansion  
COP

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## FISCAL YEAR 2011/12 CAPITAL IMPROVEMENT PROJECTS

The CIP has been developed to identify necessary improvements to meet existing and future needs of the SCWD system. Improvements through the year 2030 address \$62,396,000 of existing needs and \$87,159,000 2008 dollars of projected needs based on anticipated future development. Those improvements that are driven by future development do not financially impact the CIP for fiscal year 2011/12. Developer impact capacity fees are anticipated to be collected from various real estate development projects at the planning phase. The amount of these impact capacity fees is currently forecasted to be \$400,000 during FY 2011/12 and would be utilized to offset costs associated with improvements to storage, booster pumping, supply and distribution as system needs are realized in the future or to reimburse developers who advanced greater system improvement costs.

In the development of the Water Master Plan, capital projects were identified based on established Design Criteria. The resulting projects were then prioritized and scheduled over a 21-year period starting in 2009.

The Design Criteria establish the minimum capacity or efficiency of all components constituting the water delivery infrastructure. These Design Criteria were developed jointly by SCWD and Civiltec Engineering, Inc. to ensure compliance with federal, state and local regulations related to health, safety and fire fighting, as well as to provide a framework for efficient operation of facilities and logical expansion of the distribution system needed to meet future demand requirements.

Capital Projects are non-operating expenses. The categories of Capital Projects are:

- **Major Capital Improvements Projects.** Projects associated with the expansion of service due to growth or increase in demand and cost more than \$250,000.
- **Minor Capital Improvement Projects.** Projects associated with the expansion of service due to growth or increase in demand that cost \$250,000 or less.
- **Upgrades.** Projects related to the repair or refurbishment of existing infrastructure.
- **Replacements.** Projects related to replacement of existing infrastructure.
- **Studies and Administration.** Expenses related to planning, feasibility studies and other non-recurring reports, evaluations or tests.
- **Equipment.** The purchase, replacement, maintenance and upgrading of equipment essential to supporting administrative and service needs with a cost of \$5,000 or more.

Additional detail is included on the following pages for each capital project that costs more than \$250,000 in total including title, category, source, justification, purpose, cost estimate, benefit/impact, location/extent, description and schedule/progress. Detail for each capital project that costs less than \$250,000 in total including title, category, cost estimate and description.

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## CAPITAL IMPROVEMENT PROJECT - WELLS

**Title:** Alluvium Well

**Category:**

Major Capital Improvement Project

**Source:**

The 2008 SCWD Water Master Plan recommends expansion of groundwater production to help maintain the preferred ratio of groundwater to imported water.

**Justification:**

At the present time SCWD operations has to move water from the Sky Blue Zone in the summer months to keep up with water demands. This operation is done by manually adjusting a valve located at the Via Joyce Booster Station to allow a controlled amount of water to flow from the Sky Blue Zone into the Catala Zone.

**Purpose:**

Improve diversification of water sources and redundant supply to the Catala Pressure Zone

**Cost Estimate:**

Preliminary studies for the well siting project will begin in FY 2011/12. The design is anticipated to begin in FY 2012/13 and the drilling phase completed by the end of FY 2012/13. The equipment installation phase is programmed for FY 2013/14. The Master Plan provides for a 4% annual escalation in cost. Including escalation, the total budget for the project is programmed as follows:

- \$127,000 FY 2011/12
- \$345,870 FY 2012/13
- \$502,130 FY 2013/14

Total Estimated Budget is \$975,000

**Benefit/Impact:**

A new well in the upper end of the Catala Zone will allow water systems operations to be more efficient and automated. SCWD will have another production source in a location where needed. The Catala Pressure Zone will be protected against reduced imported water or groundwater availability due to an emergency or maintenance.

**Location/Extent:**

The location of the new well is to be determined through a siting study and hydrological survey.

**Description:**

Site, drill, equip and complete a well in the Catala Pressure Zone to improve groundwater supply to the area. This well will be sited to extract from the Alluvium.

**Schedule:**

The siting study is scheduled to begin in FY 2011/12. SCWD Engineering will work with a hydrogeologist to assist with the assessments. The design is anticipated to begin in FY 2012/13. Drilling and construction is projected to be completed by FY 2013/14.

# Warehouse Upgrade

## Onsite Stormwater Catch Basin



Installing new catch basin south of existing building for better drainage.



Replacing drainage pipe from new catch basin to storm drain on Golden Triangle Road.

# CAPITAL IMPROVEMENT PROJECT - WAREHOUSE UPGRADE

**Title:** Warehouse Upgrades

**Category:**  
Upgrade

**Source:**  
Operations

**Justification:**  
Current facility lacks specific structures needed to accommodate the storage of and access to certain materials.

**Purpose:**  
Properly store and segregate materials and improve drainage. Provide appropriate security for those assets.

**Cost Estimate:**  
The planning, design and construction of the exterior was originally programmed for FY 2010/11 with a budget of \$565,000. There is a carry forward of \$365,000 to FY 2011/12. The interior has a budget of \$350,000 for FY 2011/12 for the design and construction.

**Benefit/Impact:**  
This project will allow the warehouse to be secured, safe and organized.

**Location/Extent:**  
21110 West Golden Triangle Road

**Description:**  
The interior improvements consist of, replacing the concrete floor, which has large cracks and is not level and replacing the old wood interior with a prefabricated office, new roll-up doors, new lighting, new racks and a security camera system.

**Schedule/Progress:**  
The project planning is complete and construction is planned to start July 1, 2011.

# Friendly Valley Tank

This project is to provide 3.5 MG of additional tank storage to supply the Friendly Valley Tank Zone. There are two possible tank sites that will meet this storage requirement.



Friendly Valley Tank Site, looking south and southwest towards existing tanks.



# CAPITAL IMPROVEMENT PROJECT - RESERVOIRS

**Title:** 3.5 MG Friendly Valley Tank

**Category:**

Major Capital Improvement Project

**Source:**

2008 SCWD Water Master Plan Chapter 7, Table 7-20 – Capital Improvement Project C1

**Justification:**

The following Water Master Plan Design Criteria were applied to existing storage capacity in each pressure zone: each pressure zone should provide a volume equal to the sum of (1) Operational Storage (30% of one day of maximum day demand), (2) Emergency Storage (one day of maximum day demand) and (3) Fire Storage (per fire flow and duration according to Zoning and land Use category). The Friendly Valley Pressure Zone was determined to have a storage deficiency of 3.2 MG. There are no opportunities to share excess storage capacity with adjacent pressure zones.

**Purpose:**

Adequate storage capacity ensures a sufficient volume of water to fight fires, accommodate diurnal demand fluctuation and provide 24 hours to repair infrastructure or restore service due to emergencies such as pipe breaks or power outages.

**Cost Estimate:**

Siting studies for the project began in FY 2009/10 and continued into FY 2010/11. Engineering is currently working with Los Angeles Department of Water and Power on land acquisition. Environmental compliance, land acquisition and design have been programmed for the Friendly Valley Tank Site in FY 2011/12. The construction of the Friendly Valley Tank Site is programmed in FY 2012/13. The Master Plan provides for a 4% annual escalation. Including escalation, the total budget for the project is programmed as follows:

- \$ 175,000 FY 2009/10 and FY 2010/11
- \$ 86,236 FY 2011/12
- \$2,302,250 FY 2012/13
- \$2,598,250 FY 2013/14

Total Estimated budget is \$5,161,736.

**Benefit/Impact:**

Sufficient storage adds redundancy to a booster pump/reservoir system. In the event of a power outage or other emergency, water contained in this reservoir will continue to provide service to the pressure zone until power can be restored. This eliminates the need for an extensive permanent back-up power supply since there is ample time to move a portable backup generator into position if necessary.

**Location/Extent:**

Adjacent to existing Friendly Valley Tank site in the Los Angeles Department of Water and Power (LADWP) right-of way.

## **CAPITAL IMPROVEMENT PROJECT - RESERVOIRS**

### **Description:**

Construct 3.5 MG reservoir and associated site and piping improvements.

### **Schedule/Progress:**

The tank siting study concluded that there is adequate space to construct a new 1.5 MG tank near the existing Friendly Valley Tank site. Contact with LADWP has been made and the land acquisition process is underway. A second tank site for a 2.0 MG tank is still under way.

## CAPITAL IMPROVEMENT PROJECT - PUMPS

**Title:** SC-1 Panel Replacement

**Category:**  
Minor Capital Improvement Project

**Cost Estimate:**  
\$160,000

**Description:**  
Remove and install new motor control panels, SCE meter panel and relocate SCE transformer. The current motor control panels are not supported with parts by suppliers and are failing. The current SCE meter panel does not have a disconnect so that SCWD staff can turn the power off to the station. Replacing this panel requires SCWD to move this panel and the transformer to the outside of the station.

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# CAPITAL IMPROVEMENT PROJECT - RESERVOIR MAINTENANCE

**Title:** Sky Blue North 2 MG Tank Interior Recoat

**Category:**  
Major Capital Improvement Project

**Source:**  
Operations

**Justification:**  
The interior coating of this tank is deteriorating and needs recoating. The retrofit moves the drain and overflow from the floor to the side of the tank, allowing the tank to move in the event of an earthquake. The FLEX-TEND allows the tank to move in the event of an earthquake.

**Purpose:**  
To repair the interior coating and help protect the tank floor in the event of an earthquake.

**Cost Estimate:**  
\$370,000

**Benefit/Impact:**  
This will help extend the life of the tank and allow the tank to move in an earthquake.

**Location:**  
East of Santa Catarina Road

**Description:**  
Recoating of the interior of the tank and retrofit the overflow in addition to installing a FLEX-TEND.

**Schedule:**  
Between November 2011 and April 2012.

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## CAPITAL IMPROVEMENT PROJECT - RESERVOIR MAINTENANCE

**Title:** Copper Hill 2 MG Tank Exterior Coat

**Category:**

Minor Capital Improvement Project

**Cost Estimate:**

\$142,000

**Description:**

Spot repair exterior shell of the tank and recoat. This estimate includes the cost of inspection.

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# CAPITAL IMPROVEMENT PROJECT - RESERVOIR MAINTENANCE

**Title:** North Oaks 3 MG Tank Interior Recoat

**Category:**  
Major Capital Improvement Project

**Source:**  
Operations

**Justification:**  
The interior coating of this tank is deteriorating and needs recoating. The retrofit moves the drain and overflow from the floor to the side of the tank, allowing the tank to move in the event of an earthquake. The FLEX-TEND allows the tank to move in the event of an earthquake.

**Purpose:**  
To repair interior coating and help protect the tank floor from tearing open in the event of an earthquake.

**Cost Estimate:**  
\$370,000

**Benefit/Impact:**  
This will help extend the life of the tank and to allow tank to move in the event of an earthquake.

**Location:**  
North end of Olympian Ct.

**Description:**  
Recoating the interior of the tank and retrofit the overflow in addition to installing a FLEX-TEND.

**Schedule:**  
Between November 2011 and April 2012.

# Service Replacements

This project involves the replacement of aging service connections out to main lines. These are examples of some service replacement work.



Completed street with patches from service replacement trench work.



Service pipeline routed underground towards meter.



Left: Service pipeline with meter.



Right: Service tap saddle.



Open trenches showing PVC main lines with new service lines and saddles. Existing underground utilities were undisturbed and protected during excavation.

# Capital Improvement Project - Programmed Pipeline and Service Replacements

**Title:** Service Line Replacement Program

**Category:**  
Replacements

**Source:**  
Operations

**Justification:**  
The area targeted for replacement experiences frequent leaks and service failures.

**Purpose:**  
Replace water services in areas that have experienced increased leak frequency, to increase the reliability of the distribution system.

**Cost Estimate:**  
\$500,000

**Benefit/Impact:**  
Infrastructure asset management and increased reliability of the distribution system.

**Location/Extent:**  
Saugus: Caraway Lane north of Grovepark Drive and cul-de-sacs on Caraway Lane.

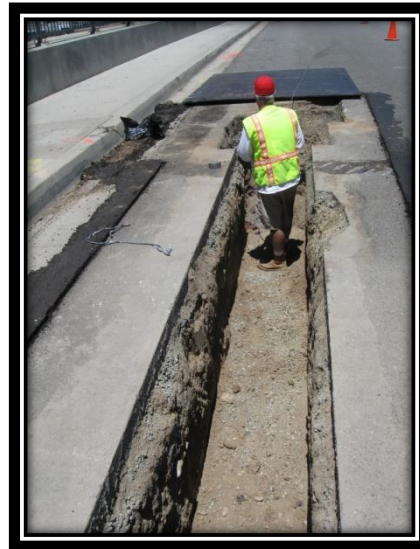
**Description:**  
Replace water services from the corporation stop up to and including the angle stop.

**Schedule/Progress:**  
FY 2011/12

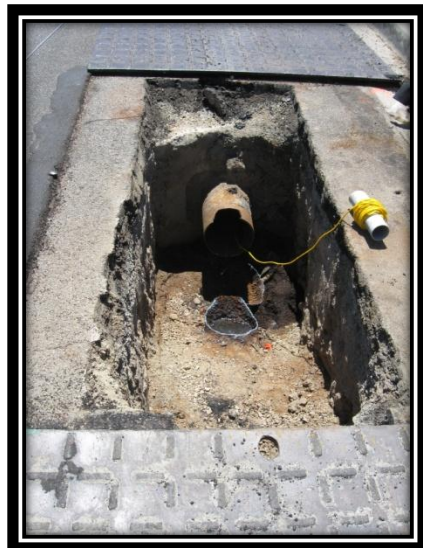
# Centurion Pipeline

This project was the repair of a 14-inch steel main within the Centurion Street Bridge by inserting 12-inch fusible PVC pipe within the existing pipe. This pipe repair method reduces the amount of trenching and increases utilization of the existing main.

Existing pipe is hydrocleaned and videotaped prior to insertion of the new fusible C900 PVC pipeline.



Smaller trench to insert fusible pipe into the existing pipe.



Rope is attached to a test pipe that is pulled through the existing main.

Test pipe reaches the end of the existing main.



Forty-foot lengths of the new PVC pipes are fused together and then slowly inserted into the existing main.

## CAPITAL IMPROVEMENT PROJECT - PIPELINE REPLACEMENTS

**Title:** Centurion Pipeline

**Category:**  
Replacement

**Cost Estimate:**  
\$130,727

**Description:**  
Install approximately 200 linear feet of 12-inch slip lining of the existing 14-inch pipeline in the Centurion Bridge. The existing 14" pipeline experienced a leak and was removed from service.

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# CAPITAL IMPROVEMENT PROJECT – PROGRAMMED PIPELINE AND SERVICE REPLACEMENT

**Title:** Copperhill Pipeline

**Category:**  
Major Capital Improvement Project

**Source:**  
Operations

**Justification:**  
System is not “looped” in this area. Periodic emergency repairs and shutdowns temporarily result in 500+ homes without fire protection and domestic water supply.

**Purpose:**  
Provide secondary water supply to the east end of the Catala Pressure Zone.

**Cost Estimate:**  
\$275,000

**Benefit/Impact:**  
Completed project will meet SCWD hydraulic specifications. This will result in less of an impact to the customers during maintenance and repair activities.

**Location/Extent:**  
On Copperhill Drive from Benz Road to David Way

**Description:**  
Install 1630’ of 16” PVC C-905 water main

**Schedule/Progress:**  
FY 2011/12

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## CAPITAL IMPROVEMENT PROJECT - PROGRAMMED PIPELINE AND SERVICE REPLACEMENTS

**Title:** Bouquet Tank Pipeline

**Category:**  
Replacement

**Cost Estimate:**  
\$115,200

**Description:**  
Replace the existing 16" above grade steel line to the Bouquet Tank with HDPE. The current line is above ground and is deteriorating.

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# CAPITAL IMPROVEMENT PROJECT - DISTRIBUTION PIPELINES AND HYDRAULIC IMPROVEMENTS

**Title:** Knockhaven Drive

**Category:**  
Major Capital Improvement Project

**Source:**  
2008 SCWD Water Master Plan Chapter 7, Table 7-20 – Capital Improvement Project G1

**Justification:**  
Residual pressures should not fall below 20 psi during a fire event in accordance with County of Los Angeles or City of Santa Clarita Fire Department requirements.

**Purpose:**  
Improve fire flow capabilities to meet 20 psi residual pressure in all fire hydrants in the area.

**Cost Estimate:**  
Studies for the pipeline alignment and easement status project began in FY 2009/10 and continued into FY 2010/11. Engineering has developed exhibits to open discussions with existing property owners regarding new easements. The construction has been programmed for FY 2011/12. The Master Plan provides for a 4% annual escalation. Including escalation, the total budget for the project is programmed as follows:

- \$168,000 FY 2009/10 and FY 2010/11
- \$ 55,153 FY 2011/12

Total Estimated Budget is \$223,153.

**Benefit/Impact:**  
Distribution mains should be sized to provide peak hour demands or maximum day demand plus fire flow for the conditions anticipated. To minimize pumping costs, the maximum velocity shall not exceed 10 feet per second and head loss shall not exceed 10 feet per 1,000 feet except under fire flow conditions. The system will meet fire flow requirements at proper velocity and pressure residual once constructed.

**Location:**  
The proposed site is Knockhaven Street north of Iron Canyon Road and south of Gwenalda Lane.

**Description:**  
Construct approximately 900 lineal feet of 6-inch pipeline in parallel to the existing water main on Knockhaven Street north of Iron Canyon Road and south of Gwenalda Lane. The new pipe will increase the fire flow capability of the existing system to achieve 20 psi residual at the required fire flow at all hydrants on Knockhaven Street between Iron Canyon Road and Gwenalda Lane.

**Schedule:**  
The objective is to secure necessary easements for the water pipeline on Knockhaven Street and proceed with design and construction during FY 2011/12.

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# CAPITAL IMPROVEMENT PROJECT – DISTRIBUTION PIPELINES AND HYDRAULIC IMPROVEMENTS

**Title:** Alderbrook Drive

**Category:**

Major Capital Improvement

**Source:**

2008 SCWD Water Master Plan Chapter 7, Table 7-20 – Capital Improvement Project G3, G4, and G5

**Justification:**

Residual pressures should not fall below 20 psi during a fire event in accordance with County of Los Angeles or City of Santa Clarita Fire Department requirements.

**Purpose:**

Improve fire flow capabilities to meet 20 psi residual pressure in all fire hydrants in the area.

**Cost Estimate:**

Preliminary studies for the pipeline alignment and easement status project began in FY 2010/11. Easements are programmed to be secured and design completed in FY 2011/12. The construction has been programmed for FY 2012/13. The Master Plan provides for a 4% annual escalation. Including escalation, the total budget for the project is programmed as follows:

- \$ 73,500 FY 2011/12
- \$457,000 FY 2012/13

Total Estimated Budget is \$530,500

**Benefit/Impact:**

Distribution mains should be sized to provide peak hour demands or maximum day demand plus fire flow for the conditions anticipated. To minimize pumping costs, the maximum velocity shall not exceed 10 feet per second and head loss shall not exceed 10 feet per 1,000 feet except under fire flow conditions. The system will meet fire flow requirements at proper velocity and pressure residual once constructed.

**Location/Extent:**

The proposed site is Alderbrook Drive from 12<sup>th</sup> Street to the north end of Alderbrook Drive.

**Description:**

Construct approximately 2,075 lineal feet of 8-inch pipeline in parallel to the existing water main on Alderbrook Drive from 12<sup>th</sup> Street to the north end of Alderbrook Drive. The new pipe will increase the fire flow capability of the existing system to achieve 20 psi residual at the required fire flow at all hydrants on Alderbrook Drive from 12<sup>th</sup> Street to the north end of Alderbrook Drive.

**Schedule/Progress:**

The objective is to secure necessary easements for the water pipeline on Alderbrook Drive and proceed with design in FY 2011/12. Construction is programmed during FY 2012/13.

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# CAPITAL IMPROVEMENT PROJECT - METERS

**Title:** Automated Meter Reading

**Category:**

Major Capital Improvement Projects

**Source:**

Operations

**Justification:**

Current meter reading method requires us to be reactive and not proactive in leak detection and conservation efforts. It is also subject to human error and provides only limited data.

**Purpose:**

Increased meter reading accuracy, improve customer service, water loss prevention and conservation.

**Cost Estimate:**

- \$ 875,000 FY 2011/12
- \$1,051,000 FY 2012/13
- \$1,164,500 FY 2013/14
- \$1,164,500 FY 2014/15

**Benefit/Impact:**

This system will provide faster read times. This system will also allow staff to attend training and other programs without interrupting reading schedules. It will reduce human error and it will enhance staff safety by taking staff off of busy streets reading meters. It will allow customer service to discuss customer accounts in more detail with graphs, real time reads and actual water usage times.

**Location/Extent:**

All metered service connections and various water company properties.

**Description:**

Installation of Advanced Metering Infrastructure

**Schedule:**

Fiscal Year 2011/12:

- Installation of towers, Tower Gateway Base stations (TGB) and backhaul (phone lines, radio, DSL etc.) at two locations
- Installation of the Regional Network Interface at the main office
- Installation of 3,180 SmartPoint transmitters

Fiscal Year 2012/13:

- Installation of towers, TGB and backhaul at three locations
- Installation of 3,196 SmartPoint transmitters

Fiscal Year 2013/14

- Installation of 6,266 SmartPoint transmitters

Fiscal Year 2014/15

- Installation of 6,266 SmartPoint transmitters

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# CAPITAL IMPROVEMENT PROJECT – COMPUTER SOFTWARE

**Title:** Utility Billing and Customer Information System

**Category:**  
Equipment

**Source:**  
Analysis of UB/CIS Software Presentation to the CLWA Board on March 9, 2011 by McClure Consulting

**Justification:**  
Current Community Plus Version 8.1.1 from Sungard Public Sector requires over ten modifications for the software to function efficiently for SCWD's daily operations. It is more cost effective for SCWD to replace the existing software with a more specialized software that focuses on UB/CIS for water districts.

**Purpose:**  
To enhance billing capabilities and assurance the new software will satisfy SCWD's needs over an extended period of time.

**Cost Estimate:**  
\$400,000

**Benefit/Impact:**  
Ease of use for customer service and improved customer billings along with better reports for various analysis.

**Location/Extent:**  
Either CLWA's or SCWD's main office depending on Information Technology's recommendation of best server location.

**Description:**  
Install new UB/CIS software and purchase required hardware for efficient and optimal operations in the Customer Service Department.

**Schedule/Progress:**  
RFP to be distributed July 2011.  
Final vendor selection anticipated in January 2012.  
Final contract negotiations anticipated April 2012.  
Implementation anticipated to begin in May 2012 with expected completion by January 2013.

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## CAPITAL IMPROVEMENT PROJECT - CAPITAL EQUIPMENT

**Title:** Two Generators

**Category:**  
Equipment

**Cost Estimate:**  
\$150,000

**Description:**  
Two generators, one for the Engineering building and one for the Customer Service building. In case of a major emergency, earthquake or valley wide power outage, SCWD will be able to continue operations at its Engineering and Customer Service buildings.

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## MINOR CAPITAL IMPROVEMENT PROJECTS

**Title:** Live Oak Springs Canyon and Saddleback Road Upgrade

**Category and Cost Estimate:**

Replacement; \$42,000

**Description:**

Complete upgrade and relocation of the PRV, the vault and the lid. The current PRV is in a vault that is deteriorating and the PRV is in poor condition. This station is a second supply source to the lower Live Oak Springs Canyon Road area.

**Title:** Vault and Lid Replacement

**Category and Cost Estimate:**

Replacement; \$20,000

**Description:**

This will be an upgrade of the vault and lid at a PRV station. This is a program to replace unsafe aging vaults and lids in our service area. This program was developed for safety purposes and ease of maintenance. (Location to be determined at a later date.)

**Title:** Automation Upgrades - SCADA

**Category and Cost Estimate:**

Equipment; \$30,000

**Description:**

To analyze and improve SCWD production system by upgrading devices at pumping facilities, allowing SCWD to take full advantage of the SCADA system.

**Title:** Chlorinators X 3

**Category and Cost Estimate:**

Equipment; \$80,000

**Description:**

The three stations that will have units installed are:

1. Sierra Well
2. Mitchell 5A Well
3. North Oaks West Well

Sierra and Mitchell have the early model of chlorinators; the units are becoming brittle (plastic) and are known for pump problems. North Oaks West does not have a chlorinator.

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## MINOR CAPITAL IMPROVEMENT PROJECTS

**Title:** Well Repair/Upgrade per Arc Flash Analysis

**Category and Cost Estimate:**

Upgrade; \$75,000

**Description:**

Upgrade or remove and install electrical equipment. This will be spelled out in the Arc Flash analysis.

**Title:** Pump Station Repairs/Upgrade per Arc Flash Analysis

**Category and Cost Estimate:**

Upgrade; \$75,000

**Description:**

Upgrade and or remove and install electrical equipment. This will be spelled out in the Arc Flash analysis.

**Title:** Ranch View Pressure Station

**Category and Cost Estimate:**

Upgrade; \$10,000

**Description:**

Remove old pumps and replace with Variable Frequency Drive's (VFDs). The current system works on pressure switches that are on or off. With VFDs the system will hold a constant pressure, which is more favorable for both operating and customer service purposes.

**Title:** Princess Pressure Station

**Category and cost Estimate:**

Upgrades; \$17,000

**Description:**

Remove old pumps and replace with Variable Frequency Drive's (VFDs). The current system works on pressure switches that are on or off. With VFDs the system will hold a constant pressure, which is more favorable for both operating and customer service purposes.

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## CAPITAL IMPROVEMENT PROJECT - CAPITAL EQUIPMENT

**Title:** 5 Trucks ¾ Ton Replacement

**Category:**  
Equipment

**Cost Estimate:**  
\$200,000

**Description:**  
Vehicle replacement policy states vehicles having a GVWR of 8,501 pounds or more can be considered for replacement at 80,000 miles or nine years of age. Five units qualify for replacement ( #2, #8, #11, #12, and #22).

**Title:** One Crew Cab Truck with Utility Bed

**Category:**  
Equipment

**Cost Estimate:**  
\$85,000

**Description:**  
Vehicle replacement policy states vehicles having a GVWR of 8,501 pounds or more can be considered for replacement at 80,000 miles or 9 years of age. Unit #10 has 85,000 miles and maintenance has increased over the last year.

**Title:** Pool Vehicle Replacement

**Category:**  
Equipment

**Cost Estimate:**  
\$45,000

**Description:**  
Vehicle replacement policy states – Sedans or light duty trucks having a gross vehicle weight rating (GVWR) of 8,500 or less can be replaced when they have: 100,000 miles or 8 years of age.

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