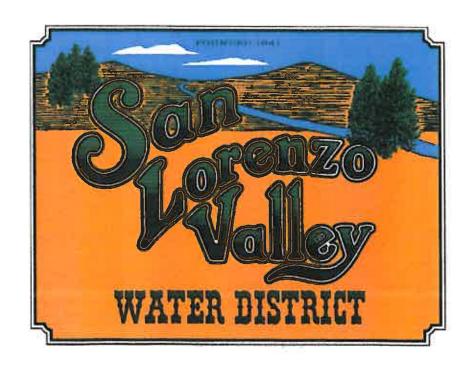
SAN LORENZO VALLEY WATER DISTRICT



CAPITAL IMPROVEMENT PROGRAM 2010

SAN LORENZO VALLEY WATER DISTRICT CAPITAL IMPROVEMENT PROGRAM

PREFACE

The process of capital project planning and development of a capital improvement program was established to provide an orderly procedure for the identification, evaluation and prioritization of current and future capital needs of the San Lorenzo Valley Water District ("District"). In October 1997 the District established and adopted a written capital improvement program. Since that date, the 1997 Capital Improvement Program has been utilized to guide the District's long and short-range planning process by matching identified needs, desired prioritizes and major capital expenditures. During this period of time, the District completed many, but not all, of the identified projects identified in the 1997 Capital Improvement Program. See Appendix A for a summary of completed projects. This report updates and supersedes the 1997 Capital Improvement Plan.

INTRODUCTION

This report, the San Lorenzo Valley Water District ("District") 2010 Capital Improvement Plan ("CIP") identifies numerous specific capital improvement projects for repair, upgrade and/or expansion of the District's water supply, treatment, and distribution systems and other supporting facilities. The CIP is intended to be a long range (10 year) forecast which identifies major projects. Generally, the projects identified herein are defined as capital improvement projects. The District defines these projects as any expenditure of major values, which recurs irregularly, results in the acquisition of a fixed asset and has a long useful life.

An adopted CIP serves a number of useful purposes. One outstanding purpose is the facilitation of participation in the review of proposed projects, establishment of priorities and allocation of limited financial resources. It is unlikely that the District can reasonably fund all of the proposed projects contained in this report. However, the CIP provides a better understanding of the District's projected eventual need for future infrastructure and the establishment of priorities amongst the proposed projects. The allocation of capital and staff resources requires the District to balance goals and objectives against present conditions and future needs. The CIP serves an important administrative purpose as the backbone of a solid, well-planned strategic and capital improvement work and financing program. No specific sources of funding or financing options have been identifies relative to the proposed projects contained within this report.

The term "capital improvement project" contained in this report refer to facilities or improvements that are relatively large, expensive (generally >\$100,000) and expected to provide service over a considerable period of time (generally >5 years). The CIP does not include other recurring capital expenditures which have a relatively short range life expectancy for example; vehicles, office and computer equipment, pumps and motors.

The CIP contained in this report is divided into three project categories. The following standards were utilized for determination of project categories:

- CATEGORY A Essential or highest priority. Category A projects are required
 to correct existing deficiencies which seriously impact performance of critical
 facilities, or are project which provide a measurable improvement to a major
 portion or the entire water system. Projects within this category need attention
 during the next 5 years.
- 2. CATEGORY B Desirable or second priority. Category B projects include necessary work to improve, replace, repair or optimize existing facilities which provide basic services to specific or limited areas. Projects within this category need attention in the next 5 -10 years.
- 3. CATEGORY C Deferrable or third priority. Category C projects include work which can be deferred to suit the availability of financial resources without impacting essential basic services. Projects in this category need attention in the next 10+ years.

It should be noted and understood that the projects within each of the designated categories have not been internally ranked or prioritized within each of their designated categories. This report is intended to identify certain key deficiencies and long-range project to establish a framework for further review and realization of the District's specific desired goals and objectives. The CIP provides the basis for informed decisions and choices that are consistent with the District's identified long and short-term development.

Some of the projects identified in this report may require several years of lead time to secure various required clearances and/or provide for specific design criteria prior to the commencement of construction. This will require the expenditures of funds and staff resources to provide for comprehensive technical reports and the review of alternatives prior to finalization and development of the final work program.

Project costs identified in this report are based upon current (2010) construction estimates and are intended solely to provide a preliminary understand of typical estimated costs associated with projects of a similar nature. The cost of each actual project may vary due to such factors as location, need for property acquisition and other specific design and/or technical components.

The CIP identifies fifty-five (55) proposed projects with an aggregate value of approximately \$27,500,000. The projects contained in this report are divided by categories as follows:

CATEGORY A	\$17,085,000
CATEGORY B	\$ 2,995,000
CATEGORY C	\$ 7,375,000
Grand Total	\$27,455,000

Finally, it should be noted and understood that the capital improvement planning process is a dynamic program which is subject to a systematic review and update on a regular basis to meet the and address new and ever changing priorities within the District. The CIP should be review and updated on a biannual (2 year) basis to ensure that the goals, objectives and identified project match those desired by the community and Board of Directors.

CATEGORY A

CATEGORY A – Essential or highest priority. Category A projects are required to correct existing deficiencies which seriously impact performance of critical facilities, or are project which provide a measurable improvement to a major portion or the entire water system. Projects within this category need attention during the next 5 years.

CODE NO.	PROJECT TITLE	ESTIMATE COST	PROJECT CODE 1997 PROGRAM
A- 1	New Probation Groundwater Well	\$350,000	New
A-2	Nina Water Storage Tank	\$275,000	New
A-3	Quail Hollow Groundwater Well	\$325,000	A-10
A-4	North System-South System Intertie	\$2,800,000	B-16
A -5	Loch Lomond Water Supply	\$1,950,000	B-17
A-6	Administrative Campus	\$5,500,000	New
A-7	Probation Water Storage Tank	\$1,100,000	B-14
A-8	Bull Spring Intake Transmission Line	\$500,000	New
A-9	Lyon Zone Water Distribution System	\$750,000	B-18
A-10	Quail Hollow Water Distribution System	\$2,400,000	New
A-11	Felton System Intertie	\$325,000	New
A-12	Riverside Grove Water Storage Tank	\$285,000	B-1
A-13	Brookdale Water Storage Tank	\$400,000	B-12
A-14	Bear Creek Estates Water Storage Tank	\$125,000	A-7
	SUBTOTAL CATEGORY A	\$17,085,000	

NEW PROBATION GROUNDWATER WELL

Project Code: A-1

Project Title: NEW PROBATION GROUNDWATER WELL

Background:

The District currently operates and maintains two (2) active groundwater wells in the District's South System. They are Pasatiempo Well No. 6 constructed in 1991, and Pasatiempo Well No. 7 constructed in 1990. Prior to construction of Pasatiempo Well No. 6 & 7, the District operated an additional well, New Probation (Pasatiempo Well No. 5) at a location in the general vicinity of the Santa Cruz Juvenile Probation Center. Pasatiempo Well No. 5 has not been utilized since the early 1990's due to reduced production associated with shallow aquifer depths. Aquifer levels in the general area have declined since the construction of Pasatiempo Well No. 6 & 7.

Project Description:

Construction of a replacement groundwater well for Pasatiempo Well No. 5 (New Probation Well) in the generally vicinity of the Santa Cruz Juvenile Probation Center. This project will construct a new groundwater well at a location to be determined in the vicinity of Pasatiempo Well No. 5. Project includes, but is not limited to, site improvements, well construction, SCADA control, and appurtenances thereto.

Estimated Project Cost: \$350,000

NINA WATER STORAGE TANK

Project Code: A-2

Project Title: NINA WATER STORAGE TANK

Background:

The Nina Water Storage Tank is an existing 60,000 gallon redwood water storage tank located off Rebecca Drive, Boulder Creek. Nina Tank provides water storage for the Nina Zone. The service are of this zone includes a portion of Debbie Drive, Elsie Mae Drive and Rebecca Drive. This facility provides water service to approximately xxxxx customers. A second 60,000 gallon redwood water storage tank at this location was removed from service in 2008 due to excessive leakage. The remaining tank is in poor condition, has excessive leakage and full replacement is recommended to restore fire flow capacity.

Project Description:

Construction of a new 120,000 steel water storage tank in the Nina Zone. This project will replace the existing redwood water storage tank which has reached its service life. Project includes, but is not limited to, site improvements, tank construction, SCADA control, and appurtenances thereto.

Estimated Project Cost: \$275,000

QUAIL HOLLOW GROUNDWATER WELL

Project Code: A-3

Project Title: QUAIL HOLLOW GROUNDWATER WELL

Background:

The District currently operates and maintains two (2) active groundwater wells in the Quail Hollow area. They are Quail Hollow Well 4A constructed in 2000, and Quail Hollow Well 5A constructed in 2001. Prior to 1995, the District operated wells at three additional locations in the Quail Hollow area. These additional locations, Quail Hollow Wells 3, 7 and 8 were also in the greater Quail Hollow area. The saturated aquifer thickness at QH-3 was limited due to locally shallow depth to the top of the Monterey Formation. Production from QH-7 and QH-8 was constrained by relatively poor aquifer characteristics. The District plans to construct a third Quail Hollow production well in order to provide needed redundant capacity. Well sites in the vicinity of Quail Hollow Ranch are being considered in order to minimize potential interference with the existing two active wells and the desire to widen the distribution of withdrawals.

Project Description:

Construction of a new groundwater well in the Quail Hollow Area. This project will construct a new groundwater well at a location to be determined within the Quail Hollow area. Project includes, but is not limited to, property acquisition for new site location, site improvements, well construction, SCADA control, and appurtenances thereto.

Estimated Project Cost: \$325,000

NORTH SYSTEM-SOUTH SYSTEM INTERTIE

Project Code: A-4

Project Title: NORTH SYSTEM-SOUTH SYSTEM INTERTIE

Background:

The District is comprised of three (3) totally independent water systems: the North System located in the San Lorenzo Valley (Boulder Creek, Brookdale, Ben Lomond, and Zayante), the Felton System located in the Felton area, and the South System located in the Scotts Valley area. These three independent water supply and distribution systems are not interconnected. Interconnection of the systems would allow for increased reliability, especially during emergencies, and allow the South System to utilize surplus surface water from the North System during the winter months of normal rainfall years. Utilizing surface water would allow greater recharge to the South System groundwater wells. The Lyon Surface Water Treatment Plant (Boulder Creek) was specifically designed with excess capacity to treat surface water with the intention of possible utilization in the South System.

Project Description:

Construction of approximately 12,500 lineal feet of 12-inch water main and appurtenances thereto. This project would provide an interconnection between the North and South Systems. The project includes, but is not limited to, mainline, pump station and SCADA control system. Additional improvements may be necessary to eliminate flow capacity restriction between the Quail Zone and Brookdale Zone (See Project Code A-10; Quail Hollow Water Distribution System). Project cost estimate does not include Project Code A-10. Additional property acquisition may be required for the booster pump station and is not included in the estimated project cost.

Estimated Project Cost: \$2,800,000

LOCH LOMOND WATER SUPPLY PROJECT

Project Code: A-5

Project Title: Loch Lomond Water Supply Project

Background:

The District has an historical allocation to purchase 313 acre feet per year of raw water from Loch Lomond Reservoir owned and operated by the City of Santa Cruz. This allocation permits the District to purchase, treat and utilize water from Loch Lomond Reservoir on a year round basis. This project would develop facilities necessary for utilization of this water source. An engineering feasibility study is current in progress to investigate alternatives and recommend a proposed project for the utilization of the District's allocation to Loch Lomond Reservoir.

Project Description:

The specifics of this project have not been determined at the time of this report pending completion of the preliminary engineering report relative to the development and utilization of the Loch Lomond allocation. Estimated completion date for the preliminary engineering report is October 2010. Therefore, a specific project description is not included at this time and the estimated project cost is speculative at this time.

Estimated Project Cost: \$1,950,000

ADMINISTRATIVE CAMPUS

Project Code: A-6

Project Title: ADMINISTRATIVE CAMPUS

Background:

The District currently operates and maintains three (3) separate administrative and operations facilities. These existing facilities are as follows: Administration Building located at 13060 Highway 9, Operations Building located at 13057 Highway 9, and Quail Hollow Storage Facility located at 101 Quail Hollow Road. The proposed Administrative Campus would consolidate the functions of these three (3) facilities on District owned property generally located at 12788 Highway 9 (Johnson property). The project would remodel the existing 8,500 square foot building to serve as a new administrative office and an addition of 2,600 square feet for a Board of Directors annex. A new 8,000 square foot operations building would also be constructed at the project site.

Project Description:

Remodel and construction of approximately 19,100 square feet, site improvements and appurtenances thereto for the development of a new Administrative Campus for the District.

Estimated Project Cost: \$5,500,000

PROBATION WATER STORAGE TANK

Project Code: A-7

Project Title: Probation Water Storage Tank Project

Background:

The existing Probation Water Storage Tank is a 1000,000 gallon redwood water storage tank located directly behind the Santa Cruz County Juvenile Probation Center along Graham Hill Road, Scotts Valley. This facility provides water service to approximately four-hundred sixty (460) connections in the area of Lockwood Lane and Whispering Pines Drive. In addition, this facility also supplies pass-through water supply and storage for the Upper Pasatiempo Zone. The Upper Pasatiempo Zone provides water service to an additional eighty (80) connections. The Probation Water Storage Tank is approximately 40 years old and reached its useful life expectancy. The existing facility requires constant ongoing maintenance to control leakage and is undersized for the service area and fire flow capacity. The surrounding area contains sensitive environmental habitat.

Project Description:

Construction of a new 500,000 gallon steel water storage tank in the Probation Zone. This project will replace the existing 100,000 gallon redwood water storage tank. The project includes but is not limited to, temporary water storage facilities to maintain water service in the Probation Zone during construction, site improvements and a new water storage tank.

Estimated Project Cost: \$1,100,000

BULL CREEK INTAKE TRANSMISSION LINE

Project Code: A-8

Project Title: BULL CREEK INTAKE TRANSMISSION LINE

Background:

The Bull Creek Intake Transmission Line, generally located off Hillside Drive in Felton, is part of the water system acquired by the District in 2007 from California-American Water Company. This facility supplies raw water from Bull Creek Spring to the Kirby Water Treatment Plant. The existing transmission system consists of approximately 4,000 lineal feet of 6-inch steel water line, most of which is installed above aground along and through Bull Creek. The existing transmission line requires ongoing maintenance to control leakage and is subject to service interruptions. The majority of the transmission line is on private property.

Project Description:

Construction of approximately 5,000 lineal feet of new 8-inch HDPE transmission line and appurtenances thereto. Additional rights-of-way may need to be obtained from the private property owner prior to construction.

Estimated Project Cost: \$500,000

LYON ZONE WATER DISTRIBUTION SYSTEM

Project Code: A-9

Project Title: LYON ZONE WATER DISTRIBUTION SYSTEM

Background:

Lyon and Little Lyon Water Storage Tanks are two existing welded steel water storage tanks (3.2 million gallons and 240,00 gallons), located on Madrone Drive off Big Basin Way (Highway 236) in Boulder Creek. These two facilities provide water storage for all treated surface water sources. The Five-Mile Pipeline collects and transports all surface water sources to the Surface Water Treatment Plant, which is located adjacent to the Lyon Water Storage Tanks. All treated surface water passing through the Lyon Zone's Distribution System. Consolidation of all surface water sources has created a flow restriction in the Lyon Zone Water Distribution System between the water storage facilities and downtown Boulder Creek (Highway 236 and Highway 9). This hydraulic restriction limits the volume of water which can be delivered from the Surface Water Treatment Plant. In addition, construction of a North System-South System Intertie (Project Code A-4) will increase the flow restriction problem.

Project Description:

Construction of approximately 3,000 lineal feet of new 10-inch water main and appurtenances thereto. This project will replace the existing 6-inch water main along Highway 236 from Big Steel Water Storage Tank to Highway 9. The existing distribution system is outside the Highway 236 right-of-way and traverses under homes. Undersized water main is the source of flow capacity restriction between Big Steel, Brookdale and Reader Zones. This project is an estimate only and needs additional study to quantify project alternatives and costs.

Estimated Project Cost: \$750,000

QUAIL HOLLOW WATER DISTRIBUTION SYSTEM

Project Code: A-10

Project Title: QUAIL HOLLOW WATER DISTRIBUTION SYSTEM

Background:

The existing "Desert Line" is a 6-inch asbestos cement water main installed above ground cross county from the end of Ridgeview Drive to the Quail Water Storage Tanks in Ben Lomond. This line is considered a major backbone facility which transports water between the Olympia Wellfield and the Quail Water Storage Tanks. From this location, groundwater can be pumped to the entire North System. The existing line is in poor condition, without adequate restraints, and traverses sensitive habitat (sandhills). The sensitive habitat makes replacement along this route nonfeasible. The Quail Hollow Water Distribution is an alternative route which will replace the existing "Desert Line". The "Desert Line" has reached is useful life expectancy and is the source of a hydraulic system restriction due to high elevations.

Project Description:

Construction of approximately 12,000 lineal feet of new 12-inch water main line and appurtenances thereto along West Zayante Road from approximately Moon Meadow Lane to Quail Hollow and along Quail Hollow Road from West Zayante Road to Cumora Lane.

Estimated Project Cost: \$2,400,000

FELTON SYSTEM INTERTIE

Project Code: A-11

Project Title: FELTON SYSTEM INTERTIE

Background:

The acquired the Felton Water System in 2007 from California-American Water Company. The Felton Water System is a totally independent water system. The Felton Water System is not interconnected to either of the District's other water systems. Interconnection of the systems would allow for increased reliability, especially during emergencies. This project would connect the Felton Water System with the Districts existing North Systems along Highway 9. Additionally, Project Code A-4, North System-South System Intertie would provide for a looped system and the interconnection of all three (3) independent systems.

Project Description:

Construction of approximately 1,000 lineal feet of new 8-inch water main transmission line and appurtenances thereto along Highway 9 from the Twin Bridges to the end of the District's existing system and a booster pump station. Additional rights-of-way may need to be obtained prior to construction.

Estimated Project Cost: \$325,000

RIVERSIDE GROVE WATER STORAGE TANK

Project Code: A-12

Project Title: RIVERSIDE GROVE WATER STORAGE TANK

Background:

The Riverside Grove Water Storage Tank is an existing 380,000 gallon welded steel water storage tank located on Pinecrest Drive in the Riverside Grove area of North Boulder Creek. This facility provides water service to approximately ninety (90) connections in the Riverside Grove Zone. The existing tank was constructed in 1972. Inspection by an independent consultant indicates that the original tank coatings have moderate interior and exterior failures. Complete replacement of interior and exterior tank coatings is recommended. Temporary water storage will be required as part of this project to maintain water supply to customers in the Riverside Grove Zone.

Project Description:

Replacement of interior and exterior water storage tank coatings. This project will replace the original interior and exterior tank coatings of the Riverside Grove Water Storage Tank which have reached their service life. Project includes, but is not limited to, installation of temporary water storage facility and complete replacement of interior and exterior tank coatings.

Estimated Project Cost: \$285,000

BROOKDALE WATER STORAGE TANK

Project Code: A-13

Project Title: BROOKDALE WATER STORAGE TANK

Background:

The Brookdale Water Storage Tank is an existing 750,000 gallon welded steel water storage tank located on Alder Street in Brookdale. This water storage tank is one of the District's largest and most important water storage facilities. Constructed in 1972, this facility supplies domestic water and fire flow storage for approximately 1,400 connections throughout Ben Lomond. This facility also provides pass-through water supply and storage, either groundwater or surface water, depending on the time of year, for other zones. Inspection by an independent consultant indicates that the original coatings have moderate interior and exterior failures. Complete replacement of interior and exterior coatings is recommended. Temporary piping modifications will be required as part of this project to maintain water supply to customers in the Brookdale Zone.

Project Description:

Replacement of interior and exterior water storage tank coatings. This project will replace the original interior and exterior tank coatings of the Brookdale Water Storage Tank which have reached their service life. The project includes, but is not limited to, installation of temporary piping modifications and complete replacement of interior and exterior tank coatings.

Estimated Project Cost: \$400,000

BEAR CREEK ESTATES WATER STORAGE TANK

Project Code: A-14

Project Title: BEAR CREEK ESTATES WATER STORAGE TANK

Background:

The Bear Creek Estates Water Storage Tank is an existing 75,000 gallon welded steel water storage tank located off Forest Hill Drive in Bear Creek Estates. The existing tank was constructed in 1961 as part of the Bear Creek Estates subdivision. This facility provides water service to approximately one-hundred (100) connections in the Bear Creek Zone. The interior and exterior coatings of this water storage tank have reached their life expectancy and require complete replacement. Underwater video on file shows moderate to severe interior coating failure. Temporary water storage will be required as part of this project, to maintain water supply to customers in the Bear Creek Zone.

Project Description:

Replacement of interior and exterior water storage tank coatings. This project will replace the original interior and exterior coatings of the Bear Creek Estates Water Storage Tank, which have reached their service life. Project includes, but is not limited to, installment of temporary water storage facility, complete replacement of interior and exterior tank coatings, and cathodic protection system.

Estimated Project Cost: \$125,000

CATEGORY B

CATEGORY B - Desirable or second priority. Category B projects include necessary work to improve, replace, repair or optimize existing facilities which provide basic services to specific or limited areas. Projects within this category need attention in the next 5 -10 years.

CODE NO.	PROJECT TITLE	ESTIMATE COST	PROJECT CODE 1997 PROGRAM
B-1	Bar King Road Water Distribution System	\$200,000	New
B-2	Swim Water Storage Tank	\$250,000	New
B-3	Sequoia Avenue Water Distribution System	\$100,000	New
B-4	Hillside Drive Water Distribution System	\$300,000	New
B-5	Hihn Road Water Distribution System	\$140,000	New
B-6	Irwin Booster Pump Station	\$50,000	New
B-7	Echo Water Storage Tanks	\$250,000	New
B-8	Fall Creek Diversion Facility	\$150,000	New
	Buena Vista Avenue Water Distribution		
B-9	System	\$210,000	B-6
B-10	Firehouse Booster Pump Station	\$50,000	C-2
B-11	Lockwood Lane Water Distribution System	\$70,000	New
B-12	Felton Acres Water Storage Tank and Booster Pump Station	\$150,000	New
B-13	Pine Water Storage Tank	\$250,000	New
B-14	El Solyo Water Storage Tank	\$250,000	New
B-15	El Solyo Booster Pump Station	\$75,000	New
B-16	McCloud Water Storage Tank	\$250,000	New
B-17	Blair Water Storage Tank	\$250,000	New
	SUBTOTAL CATEGORY B	\$2,995,000	

BAR KING ROAD WATER DISTRIBUTION SYSTEM

Project Code: B-1

Project Title: BAR KING ROAD WATER DISTRIBUTION SYSTEM

Background:

The Bar King Road Water Distribution System, located off Two Bar Road in Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of 11/2- inch galvanized steel water main and undersize 2-inch fire hydrants. The Bar King Road Water Distribution System provides service to approximately eighteen (18) service connections in the Reader Zone. Undersize water mains are the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Project Description:

Construction of approximately 2,000 lineal feet of new 8-inch water main and appurtenances thereto. This project will replace the existing 1 ½ inch water main along Bar King Road and Two Bar Road to the end of the distribution system. Undersize water mains are the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Estimated Project Cost: \$200,000

SWIM WATER STORAGE TANK

Project Code: B-2

Project Title: SWIM WATER STORAGE TANK

Background:

The Swim Water Storage Tanks, located off Scenic Way in Ben Lomond, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. This facility provides water service to approximately seventy nine (125) connections. The existing storage tanks consist of two 20,000 gallon redwood storage tanks located off a steep embankment with no vehicular access. The existing redwood water storage tanks require ongoing maintenance to control leakage and are undersize for the service area.

Project Description:

Construction of a new 120,000 gallon bolted steel water tank located in the Scenic Way neighborhood Zone. This project will replace the two existing 20,000 gallon redwood tanks that are reaching there service life. The project includes, but is not limited to Property acquisition, and relocation of the water tanks and the construction of a 120,000 gallon water storage tank, and SCADA control.

Estimated Project Cost: \$250,000

SEQUOIA AVENUE WATER DISTRIBUTION SYSTEM

Project Code: B-3

Project Title: SEQUOIA AVENUE WATER DISTRIBUTION SYSTEM

Background:

The Sequoia Avenue Water Distribution System, located off Madrona Road in Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of 6- inch cast iron water main and is installed above ground utilizing redwood timbers for supports. The Sequoia Avenue Water Distribution System provides loop water distribution to approximately seven hundred (700) connections in the Reader Zone. The redwood timbers have deteriorated with age causing main breaks along the cross-country route.

Project Description:

Construction of approximately 800 lineal feet of new 8-inch HDPE water main and appurtenances thereto. This project will replace existing 6-inch water main above ground cross-country between the Districts Reader Water Storage Tank and Sequoia Avenue providing a loop feed in the Reader Zone.

Estimated Project Cost: \$100,000

HILLSIDE DRIVE WATER DISTRIBUTION SYSTEM

Project Code: B-4

Project Title: HILLSIDE DRIVE WATER DISTRIBUTION SYSTEM

Background:

The Hillside Drive Water Distribution System, located off Hillside Drive in Boulder Creek, is part of the water distribution system acquired by the District in 1992 from the North Boulder Creek Improvement District Project (acquisition of San Lorenzo Woods Mutual Water Company and Park Mutual Water Company). The existing distribution system consists of 4- inch PVC water main which is installed in an area with geological instability. On-going ground movement has resulted in frequent damage to the existing water main. The Hillside Water Distribution System provides water service to approximately thirty (30) service connections in the North Boulder Creek Zone.

Project Description:

Construction of approximately 1,700 lineal feet of new 8-inch HDPE water main and appurtenances thereto. This project will replace the existing 4-inch PVC water main located along Hillside Drive from Fern Drive to Fern Drive. The existing water main at this location is subject to frequent repairs.

Estimated Project Cost: \$300,000

HIHN ROAD WATER DISTRIBUTION SYSTEM

Project Code: B-5

Project Title: HIHN ROAD WATER DISTRIBUTION SYSTEM

Background:

The Hihn Road Water Distribution System, located off Hihn Road in Ben Lomond, would be required in conjunction with the Desert Line Replacement Project (See Project Code A-10). The Desert Line Replacement Project would allow the District to abandon the existing cross-country supply line commonly know as the "Desert Line". The "Desert Line" is an existing 6-inch asbestos cement water main installed above ground and traverses sensitive habitat. This project would extend water service from the higher elevation University Zone into a portion of the existing Quail Hollow Zone (Ridgeview Drive). Extension of the University Zone would provide adequate water pressure to the highest elevation homes in the vicinity of Ridgeview Drive which are currently being supplied water from the "Desert Line". The Hihn Road Water Distribution System project would transfer the water supply and distribution for approximately twelve (12) service connections from the Quail Zone to the University Zone.

Project Description:

Construction of approximately 800 lineal feet of new 6-inch water main and appurtenances thereto from the University Booster Station along Stanford Drive and Hihn Road to Ridgeview Drive. This project will replace the existing 6-inch cross-country above ground water line running through sand park lands habitat.

Estimated Project Cost: \$140,000

IRWIN BOOSTER PUMP STATION

Project Code: B-6

Project Title: IRWIN BOOSTER PUMP STATION

Background:

The Irwin Booster Pump Station is an existing facility located off North Irwin Way in Boulder Creek. This water booster and regulator station is considered a major backbone facility. This facility pumps groundwater or regulates surface water, depending on the time of year, between the Big Steel Zone and Brookdale Zone. It can pump in either direction, effecting water supply for the entire North System. This pump station allows the District to utilize greater quantities of surface water for customers normally using well water. In addition, this booster pump station is necessary to transport surface water to the South System through the planned interconnection between the North and South Systems (See Project Code A-4). The existing regulator valve, which is undersized (4-inch), creates a hydraulic restriction when operating during the winter surface water mode. This restriction limits the volume of water surface water which can be transferred into the Brookdale Zone. This project will eliminate the current restriction by replacing the existing the PRV valve.

Project Description:

Installation of two redundant 6-inch pressure reducing/sustaining valves and by-pass plumbing at the facility.

Estimated Project Cost: \$50,000

ECHO WATER STORAGE TANKS

Project Code: B-7

Project Title: ECHO WATER STORAGE TANKS

Background:

The Echo Water Storage Tanks, located off Echo Lane in Boulder Creek, is part of the water distribution system acquired by the District in 1992 from the North Boulder Creek Improvement District Project (acquisition of San Lorenzo Woods Mutual Water Company and Park Mutual Water Company). This facility provides water service to approximately three hundred (300) service connections, and is the sole source of water storage for the North Boulder Creek Zone. The existing storage tanks consist of four (4) 25,000 gallon tapered redwood storage tanks piped in series at one location. Currently one of the tanks has been taken out of service do to leakage. The existing redwood water storage tanks require ongoing maintenance to control leakage and are undersize for the service area.

Project Description:

Construction of a new 120,000 gallon welded steel water tank located in the North Boulder Creek Zone. This project will replace the existing four (4) 25,000 gallon redwood tanks that are reaching there service life. The project includes, but is not limited to, a temporary water storage facility for the North Boulder Creek Zone to maintain water service during construction, site improvements, and new water storage tank.

Estimated Project Cost: \$250,000

FALL CREEK DIVERSION FACILITY

Project Code: B-8

Project Title: FALL CREEK DIVERSION FACILITY

Background:

The Fall Creek Diversion Facility, located off Fall Creek Road in Felton, is part of the water system acquired by the District in 2007 from the California-American Water Company. This facility supplies raw water from Fall Creek to the Kirby Water Treatment Plant in Felton. The existing intake facilities consist of a concrete dam, two submersible pumps, and electrical supply. Currently, the downstream splash pans that protect the dam from erosion are in need of repair due to years of undermining from stream flows. In addition, the fish ladder is not in compliance with current fishery requirements and replacement is required

Project Description:

Construction of a new fish ladder and repairs or replacement of the downstream concrete splash pans at this location.

Estimated Project Cost: \$150,000

BUENA VISTA AVENUE WATER DISTRIBUTION SYSTEM

Project Code: B-9

Project Title: BUENA VISTA AVENUE WATER DISTRIBUTION SYSTEM

Background:

The Buena Vista Avenue Water Distribution System, located off Two Bar Road in North Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 1,200 lineal feet of 2-inch galvanized steel water main. The Buena Vista Avenue Water Distribution System provides water service to approximately fifteen (15) service connections in the Reader Zone. The water main is located in a drainage ditch and is exposed on the ground surface throughout much of the area. This part of the distribution system is a high maintenance area, and mainline water leaks are frequently experienced. Undersized water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Project Description:

Construction of approximately 1,200 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace the existing 2-inch water main along Buena Vista Avenue from Fern Drive to the end of the distribution system. Undersized water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Estimated Project Cost: \$210,000

FIREHOUSE BOOSTER PUMP STATION

Project Code: B-10

Project Title: FIREHOUSE BOOSTER PUMP STATION

Background:

The Firehouse Booster Pump Station is an existing duplex water booster pump station located in an underground vault adjacent to the Boulder Creek Fire Department in Boulder Creek. This pump station provides water service to the Reader Zone, which includes Bear Creek Road and Highway 9 from Bear Creek Road to San Lorenzo Park. This facility provides water service to approximately 1,630 service connections in the Reader Zone. This facility is a duplex pump station constructed in 1992 in conjunction with the Redwood Elementary School Project. One pump supplies domestic demand and the other is a large stand-by pump for fire flow. This project would replace the large pump with a second pump identical to the smaller pump for increased reliability.

Project Description:

Rehabilitation of the existing Firehouse Booster pump station in the Reader Zone: This project will replace an existing large capacity stand-by pump with a smaller capacity pump, creating a duplex pump station.

Project Cost: \$50,000

LOCKWOOD LANE WATER DISTRIBUTION SYSTEM

Project Code: B-11

Project Title: LOCKWOOD LANE WATER DISTRIBUTION SYSTEM

Background:

The Lockwood Lane Water Distribution System, located off Lockwood Lane in Scotts Valley, is part of the District's South System. The District supplies water service alone Lockwood Lane from Graham Hill Road to Mount Herman Road through a six-inch water main. Currently, there is a gap in the distribution system of approximately 400 lineal feet along Lockwood Lane between Twin Pines Drive and Arrowhead Way. The lack of water main in this location creates a dead end condition and restricts the District's capabilities of moving water in the Probation Zone. In addition, the mainline gap also restricts the volume of water available for transfer through the bi-directional interconnection with Scotts Valley Water District.

Project Description:

Construction of approximately 400 lineal feet of new 8-inch water main and appurtenances thereto. This project will install new water main along Lockwood Lane from Twin Pine Drive to Arrowhead Way.

Estimated Project Cost: \$70,000

FELTON ACRES WATER STORAGE TANK AND BOOSTER PUMP STATION

Project Code: B-12

Project Title: FELTON ACRES WATER STORAGE TANK AND BOOSTER PUMP

STATION

Background:

The Felton Acers Water Storage Tank and Booster Pump Station, located off San Lorenzo Avenue in Felton, is part of the water system acquired by the District in 2007 from the California-American Water Company. This facility provides water service to approximately two hundred (200) service connections in the Pine Zone. The existing storage tank consists of a 100,000 gallon redwood storage tank. The purpose of this tank is to provide a wet well for the booster pump station. The existing booster pump station, located adjacent to the water storage tank, pumps water to the Pine Tank. Two (2) 1,000 gallon steel pressure tanks are also located at this facility. The smaller tanks provide pressure system service for the Pine Zone. The redwood tank is greatly oversized for the purpose of a booster pump wet well. The redwood tank is leaking and is reaching its life expectancy. The booster pump station has reached its life expectancy and requires replacement. Further investigation is needed to understand the function of the two steel pressure tanks. The function of the two (2) pressure tanks may be eliminated by the installation of SCDA control between the Pine Tank and the Booster Pump Station.

Project Description:

Construction consists but is not limited to replacement of the redwood storage tank and downsizing to accommodate the design pumping of the new pump station. Replacement of the booster pumping station with a duple pumping facility sized in accordance with demand of the Pine Zone. Installation of SCADA control for the booster pump station and water storage tank. Temporary pumping station and water storage tank will be needed during construction.

Estimated Project Cost: \$150,000

PINE WATER STORAGE TANK

Project Code: B-13

Project Title: PINE WATER STORAGE TANK

Background:

The Pine Water Storage Tank, located off Pine Drive in Felton, is part of the water system acquired by the District in 2007 from the California-American Water Company. This facility provides water service to approximately two hundred (200) service connections, and is the sole source of water storage in the Pine Zone. The existing storage tanks consist of a 20,000 gallon redwood storage tank. The existing redwood water storage tank requires ongoing maintenance to control leakage and is undersize for the service area.

Project Description:

Construction of a new 120,000 gallon welded steel water tank located in the Pine Zone. This project will replace the existing 20,000 gallon redwood tank that is reaching its service life. The project includes, but is not limited to, a temporary water storage facility for the Pine Zone to maintain water service during construction, site improvements, new water storage tank, and SCADA control. Additional property acquisition may be required and is not included in the estimated project cost..

Estimated Project Cost: \$250,000

EL SOLYO WATER STORAGE TANK

Project Code: B-14

Project Title: EL SOLYO WATER STORAGE TANK

Background:

The El Solyo Water Storage Tank, located off El Solyo Drive in Felton, is part of the water system acquired by the District in 2007 from the California-American Water Company. This facility provides water service to approximately eighty (80) service connections, and is the sole source of water storage in the El Solyo Zone. The existing storage tanks consist of a 20,000 gallon redwood storage tank located off a steep embankment with no vehicular access. The existing redwood water storage tank requires ongoing maintenance to control leakage and is undersize for the service area.

Project Description:

Construction of a new 120,000 gallon bolted steel water tank located in the El Solyo Zone. The project includes, but is not limited to, a temporary water storage facility for the El Solyo Zone to maintain water service during construction, site improvements, new water storage tank, and SCADA control. Additional property acquisition may be required and is not included in the estimated project cost.

Estimated Project Cost: \$250,000

EL SOLYO BOOSTER PUMP STATION

Project Code: B-15

Project Title: EL SOLYO BOOSTER PUMP STATION

Background:

The El Solyo Booster Pump Station, located off El Solyo Drive in Felton, is part of the water system acquired by the District in 2007 from the California-American Water Company. This facility pumps water to the El Solyo Water Storage Tank which provides water service to approximately eighty (80) service connections in the El Solyo Zone. The existing booster pump consists of a single pump with no SCADA control and substandard electrical components. The existing booster pump is undersize for the service area and replacement is required.

Project Description:

Construction of a new duplex booster pump station, with SCADA control, and wiring for standby power. This project will replace the existing Booster Pump Station which is reaching its service life. The project includes, but is not limited to temporary pump station during construction, installation of duplex pumps, concrete block building, SCADA control, and standby power transfer switching.

Estimated Project Cost: \$75,000

MCCLOUD WATER STORAGE TANK

Project Code: B-16

Project Title: MCCLOUD WATER STORAGE TANK

Background:

The McCloud Water Storage Tank, located off Orchard Road in Felton, is part of the water system acquired by the District in 2007 from the California-American Water Company. This facility provides water service to approximately one thousand (1,000) service connections in the McCloud Zone. The existing storage tanks consist of a 284,000 gallon welded storage tank located in a fenced compound with good vehicular access. The existing welded steel water storage tank currently does not have any cathodic protection and requires new painting, coating, and SCADA control.

Project Description:

Construction consists, but is not limited to, new painting, coatings, installation of cathodic protection and SCADA control. Temporary water storage tank will be required during project construction.

Estimated Project Cost: \$250,000

BLAIR WATER STORAGE TANK

Project Code: B-17

Project Title: BLAIR WATER STORAGE TANK

Background:

The Blair Water Storage Tank, located off Blair Street in Felton, is part of the water system acquired by the District in 2007 from the California-American Water Company. This facility provides water service to approximately thirty (30) service connections, and is the sole source of water storage for the Blair Zone. The existing storage tanks consist of a 255,000 gallon welded storage tank located in a fenced compound with good vehicular access. The existing welded steel water storage tank currently does not have any cathodic protection and requires new painting, coating, and SCADA control.

Project Description:

Construction consists but is not limited to new painting, coatings, installation of cathodic protection and SCADA control. Temporary water storage tank will be required during project construction..

Estimated Project Cost: \$250,000

CATEGORY C

CATEGORY C – Deferrable or third priority. Category C projects include work which can be deferred to suit the availability of financial resources without impacting essential basic services. Projects in this category need attention in the next 10+ years.

CODE NO.	PROJECT TITLE	ESTIMATE COST	PROJECT CODE 1997 PROGRAM
C-1	Fairview Booster Pump Station	\$150,000	A-8
C-2	Whitter/Manzanita Avenue Water Distribution System	\$300,000	A-14
C-3	El Solyo Avenue Water Distribution	\$160,000	A-15
C-4	Riverside Grove Booster Pump Station	\$75,000	B-2
C-5	King's Creek Road Water Distribution System	\$365,000	New
C-6	Two Bar Road Water Distribution System	\$525,000	C-3
C-7	Larita Avenue/Elena Drive Water Distribution System	\$400,000	C-13
C-8	Band Road Water Distribution System	\$225,000	New
C-9	Riverside Avenue Water Distribution System	\$625,000	B-19
C-10	Scenic Road Water Distribution System	\$365,000	New
C-11	Ridge Drive Water Distribution System	\$175,000	New
C-12	Eckely Booster Pump Station	\$75,000	A-4
C-13	Bear Creek Estates Booster Pump Station	\$75,000	B-10
C-14	Riverview Drive Water Distribution System	\$210,000	C-4
C-15	Juanita Woods Water Distribution System	\$420,000	C-5
C-16	West Park Water Distribution System	\$385,000	C-7
C-17	Railroad Avenue Water Distribution System	\$370,000	C-8
C-18	Lorenzo Avenue Water Distribution System	\$385,000	C-9

	SUBTOTAL CATEGORY C	\$7,375,000	
C-24	System	\$350,000	C-1
	Blue Ridge Drive Water Distribution		
C-23	Arden Avenue Distribution System Project	\$260,000	C-12
C-22	Upper Big Basin Way Distribution System	\$975,000	New
C-21	Brackney Road Water Distribution System	\$215,000	C-15
C-20	Sunnycroft Road Water Distribution System	\$150,000	C-14
C-19	Kipling Avenue Water Distribution System	\$140,000	C-10

FAIRVIEW BOOSTER PUMP STATION

Project Code: C-1

Project Title: FAIRVIEW BOOSTER PUMP STATION

Background:

The Fairview Booster Pump Station is an existing simplex water booster pump station located on Fairview Drive in Boulder Creek. The Fairview Booster Pump Station provides water service to approximately sixty (60) service connections in the Highland Zone. This facility also supplies pass-through water to the Nina Zone. The Nina Zone has approximately eighty (80) additional service connections. The existing pump station is in poor condition. There is a long steep set of stairs going down to the station from Fairview Drive, making accessibility difficult. The existing wood-frame building requires complete replacement. The main electrical service and disconnect are located on a remote power pole. Due to its high elevation in the supply zone, this booster pump frequently experiences losses of suction supply. A loss of suction supply has caused overheating and pump failure on several occasions. As part of this project, the booster pump station will be relocated to a lower elevation to increase suction pressure.

Project Description:

Constructions of a new booster pump station for the Highland Zone. This project will replace the existing Fairview Booster Pump Station, which needs to be relocated to a lower elevation and has reached its service life. Project includes, but is not limited to, property acquisition for an alternative location, site improvements, approximately 700 lineal feet of new 3-inch discharge piping and appurtenances, and complete booster pump station replacement. Property acquisition not included in estimated project cost.

Estimated Project Cost: \$150,000

WHITTIER/MANZANITA AVENUE WATER DISTRIBUTION SYSTEM

Project Code: C-2

Project Title: WHITTIER/MANZANITA AVENUE WATER DISTRIBUTION

SYSTEM

Background:

The Whittier/Manzanita Avenue Water Distribution System, located off Glen Arbor Road in Ben Lomond, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 2,400 lineal feet of 2-inch galvanized steel water main and undersized 2-inch fire hydrants. The Whittier/Manzanita Avenue Water Distribution System provides water service to approximately forty (40) service connections in the Brookdale Zone. Undersized water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Project Description:

Construction of approximately 2,400 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace the existing 2-inch water main along Whittier Avenue from Love Creek Road to Manzanita Avenue, Mazanita Avenue from Whittier Avenue to Locust Street, and Locust Street from Manzanita Avenue to Glen Arbor Road. Undersized water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Estimated Project Cost: \$300,000

EL SOLYO AVENUE WATER DISTRIBUTION SYSTEM

Project Code: C-3

Project Title: EL SOLYO AVENUE WATER DISTRIBUTION SYSTEM

Background:

The El Solyo Avenue Water Distribution System, located off Glen Arbor in Ben Lomond, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of 1½-inch galvanized steel water main and undersized 2-inch fire hydrants. The El Solyo Avenue Water Distribution System provides service to approximately twenty (20) service connections in the Brookdale Zone. Undersized water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Project Description:

Construction of approximately 900 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace existing 1½-inch water main along El Solyo Avenue from Manzanita Avenue to the end of the distribution system. Undersized water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Estimate Project Cost: \$160,000

RIVERSIDE GROVE BOOSTER PUMP STATION

Project Code: C-4

Project Title: RIVERSIDE GROVE BOOSTER PUMP STATION

Background:

The Riverside Grove Booster Pump Station is a duplex water booster pump station located off Redwood Drive in the Riverside Grove area of North Boulder Creek. The Riverside Grove Booster Pump Station provides water service and fire flow to approximately ninety (90) service connections in the Riverside Grove Zone. Constructed in 1972, this facility has one booster pump which supplies domestic demand and a second large stand-by booster pump which supplies fire flow. When in use, the large fire flow pump creates suction supply problems. Currently, the large booster pump is disabled. The station also has design issues regarding the structural anchoring of the discharge piping. Because of the large storage capacity of the Riverside Grove Water Storage Tank (380,000 gallons), an automatic control valve provides for backflow from the Riverside Zone into the Reader Zone. Repair and rehabilitation of the booster pump station is recommended.

Project Description:

Repair and rehabilitation of the existing Riverside Grove Booster Pump Station. This project includes, but is not limited to, replacement of an existing large capacity stand-by pump, installation of flow meters and replacement of the automatic solenoid control valve which will allows water storage in the Riverside Grove Water Storage Tank to enter the Reader Zone.

Estimated Project Cost: \$75,000

KINGS CREEK ROAD WATER DISTRIBUTION SYSTEM

Project Code: C-5

Project Title: KINGS CREEK ROAD WATER DISTRIBUTION SYSTEM

Background:

The Kings Creek Road Water Distribution System, located off Highway 9 in North Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 2,100 lineal feet of 2- inch galvanized steel water main and undersize 2-inch fire hydrants. The Kings Creek Road Distribution System provides service to approximately eighty (80) service connections in the Reader Zone. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Project Description:

Construction of approximately 2,100 lineal feet of new 8-inch water main and appurtenances thereto. This project will replace the existing 2 inch water main along King Creek Road starting at Creek Court to end of distribution system on Sunbeam Avenue, and Meadow Drive to Sunbeam Avenue. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Estimated Project Cost: \$365,000

TWO BAR ROAD WATER DISTRIBUTION SYSTEM

Project Code: C-6

Project Title: TWO BAR ROAD WATER DISTRIBUTION SYSTEM

Background:

The Two Bar Road Water Distribution System, located off Highway 9 in North Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 3,000 lineal feet of two-inch galvanized steel water main and undersized 2-inch fire hydrants. The Two Bar Road Distribution System provides water service to approximately fifteen (15) service connections in the Reader Zone. This part of the distribution system is considered a high maintenance area, and mainline water leaks are frequently experienced. Undersized water main is the source of intermittent low water pressure, interruption of water service in the higher elevation areas, and inadequate fire flow capacity.

Project Description:

Construction of approximately 3,000 lineal feet of new 8-inch water main and appurtenances thereto. This project will replace the existing 2-inch water main along Two Bar Road from approximately Redwood Christian Park to the end of the distribution system. Undersized water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Estimated Project Cost: \$525,000

LARITA AVENUE/ELEANA DRIVE WATER DISTRIBUTION SYSTEM

Project Code: C-7

Project Title: LARITA AVENUE/ELEANA DRIVE WATER DISTRIBUTION

SYSTEM

Background:

The Larita Avenue/Eleana Drive Water Distribution System, located off Hihn Road in Ben Lomond, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 2,300 lineal feet of 1-inch and 2-inch galvanized steel water main and undersized 2-inch fire hydrants. The Larita Avenue/Eleana Drive Distribution System provides water service to approximately fifty (50) connections in the Quail Zone. Undersized water main is the source of inadequate fire flow capacity.

Project Description:

Construction of approximately 2,300 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace the existing 1-inch and 2-inch water main along Larita Avenue from Clement Street to Eleana Drive, and Eleana Drive from end of existing 6-inch water main to Hihn Road. Undersized water main is the source of inadequate fire flow capacity.

Estimated Project Cost: \$ 400,000

BAND ROAD WATER DISTRIBUTION SYSTEM

Project Code: C-8

Project Title: BAND ROAD WATER DISTRIBUTION SYSTEM

Background:

The Band Road Water Distribution System, located off Pleasant Way in North Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 1,800 lineal feet of 1 1/2- inch galvanized steel water main and undersize 2-inch fire hydrants. The Band Road Distribution System provides service to approximately twenty (20) service connections in the Reader Zone. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Project Description:

Construction of approximately 1,800 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace existing 1 1/2 inch water main along Band Road starting at Pleasant Way and ending at the intersection of Sunset Way. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Estimated Project Cost: \$225,000

SAN LORENZO VALLEY WATER DISTRICT PRELIMINARY CAPITAL IMPROVEMENT PROGRAM CATEGORY C PROJECT RIVERSIDE AVENUE WATER DISTRIBUTION SYSTEM

Project Code: C-9

Project Title: RIVERSIDE AVENUE WATER DISTRIBUTION SYSTEM

Background:

The Riverside Avenue Water Distribution System, located off Glen Arbor Road in Ben Lomond, is part of the original distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 3,500 lineal feet of 2-inch galvanized steel water main and undersized 2-inch fire hydrants. The Riverside Avenue Distribution System provides water service to approximately seventy (70) connections in the Brookdale Zone. This area of the distribution system frequently experiences low pressure complaints. Undersized water main is also the source of inadequate fire flow capacity.

Project Description:

Construction of approximately 3,500 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace two existing 2-inch water mains along Riverside Avenue from Glen Arbor Road to Wente Street, Wente Street from Riverside Avenue to Dickerson Avenue, and Madrone Avenue from Wente Street to Glen Arbor Road. Undersized water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Estimated Project Cost: \$625,000

SCENIC WAY WATER DISTRIBUTION SYSTEM

Project Code: C-10

Project Title: SCENIC WAY WATER DISTRIBUTION SYSTEM

Background:

The Scenic Way Water Distribution System, located off Highway 9 in Ben Lomond, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 2,100 lineal feet of 1 1/2 inch galvanized steel water main and undersize fire hydrants. The Scenic Way Distribution System provides service to approximately eighty (85) service connections in Swim Zone. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Project Description:

Construction of approximately 2,100 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace existing 1 1/2 inch water main along Scenic Way starting at Green Bank along Scenic Way to Sylvia Way tying into existing main lines. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Estimated Project Cost: \$365,000

RIDGE DRIVE WATER DISTRIBUTION SYSTEM

Project Code: C-11

Project Title: RIDGE DRIVE WATER DISTRIBUTION SYSTEM

Background:

The Ridge Drive Water Distribution System, located off Big Basin Way in Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 1,400 lineal feet of 1 1/2- inch galvanized steel water main and undersize 2-inch fire hydrants traveling cross-country on private property. The Ridge Drive Water Distribution System provides service to approximately eight (8) service connections in the Eckley Zone. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Project Description:

Construction of approximately 1,400 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace existing 1 1/2 inch water main along Ridge Road starting at Virginia Avenue and ending at the water storage tank above the end of Ridge Drive. This project will move the water main from cross-country private property to the public right-of-way. This project must be completed in conjunction with the Eckley Booster Pumping Station (Project Code C-12) Project. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Estimated Project Cost: \$175,000

ECKLEY BOOSTER PUMP STATION

Project Code: C-12

Project Title: ECKLEY BOOSTER PUMP STATION

Background:

The Eckley Booster Pump Station is an existing simplex water booster pump station located on Ridge Drive off Big Basin Way in Boulder Creek. This booster pump station, one of the District's smaller facilities, provides water service to eight (8) service connections in the Eckley Zone. Although the pump has been changed out several times, the electrical service and plumbing date back to pre-1965 acquisition from Citizens Utilities Company. The electrical service disconnect is located about 100 lineal feet away from the pump, and the automatic controls are over 30 years old. The single booster pump is exposed and unprotected from weather conditions. All together, this station has become unreliable. Construction will be difficult because access is only available to foot traffic. Relocation of this facility will be considered if property is available at the proper elevation.

Project Description:

Constructions of a new booster pump station in the Eckley Zone. This project will replace the existing Eckley booster Pump Station, which has reached its service life. Project includes complete booster pump station replacement at the same or alternative location. Project cost estimate does not include property acquisition.

Estimated Project Cost: \$75,000

BEAR CREEK ESTATES BOOSTER PUMP STATION

Project Code: B-13

Project Title: BEAR CREEK ESTATES BOOSTER PUMP STATION

Background:

The Bear Creek Estates Booster Pump Station, located on Forest Hill Road in Bear Creek Estates, was originally installed during construction of the Bear Creek Estates Subdivision. The original facility was constructed as a stand-alone water system and included a water treatment plant utilizing source water from Bear Creek. The Bear Creek Estates Booster Pump Station provides water service to approximately one-hundred (100) service connections in the Bear Creek Estates Zone. The booster pumping system was designed to work in conjunction with the treatment process. In 1977, the District abandoned the water treatment plant. The original booster pump system is inefficient and has reached its service life. The existing building is in good shape and will be utilized to house a replacement booster pump station.

Project Description:

Repair and rehabilitation of an existing water booster pump station for the Bear Creek Zone. Project includes, but is not limited to, complete upgrade and replacement of an existing facility.

Estimated Project Cost: \$75,000

RIVERVIEW DRIVE WATER DISTRIBUTION SYSTEM

Project Code: C-14

Project Title: RIVERVIEW DRIVE WATER DISTRIBUTION SYSTEM

Background:

The Riverview Drive Water Distribution System, located off Highway 9 in North Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 1,200 lineal feet of two-inch galvanized steel water main and undersized 2-inch fire hydrants. The Riverview Drive Distribution System provides water service to approximately fifteen (15) service connections in the Reader Zone. This part of the distribution system is a high maintenance area, and mainline water leaks are frequently experienced. Undersized water main is the source of intermittent low water pressure and inadequate fire flow capacity.

Project Description:

Construction of approximately 1,200 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace the existing two-inch water main along Riverview Drive from Highway 9 to the Riverview Drive split. The project includes Highway 9 bore and jack crossing. Undersized water main is the source of intermittent low water pressure and inadequate fire flow capacity.

Estimated Project Cost: \$210,000

JUANITA WOODS WATER DISTRIBUTION SYSTEM

Project Code: C-15

Project Title: JUANITA WOODS WATER DISTRIBUTION SYSTEM

Background:

The Juanita Woods Water Distribution System, located off Highway 9 in North Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 2,400 lineal feet of two-inch galvanized steel water main and undersized 2-inch fire hydrants. The Juanita Woods Distribution System provides water service to approximately sixty (60) service connections in the Reader Zone. This part of the distribution system is a high maintenance area, and mainline water leaks are frequently experienced. Undersized water main is the source of inadequate fire flow capacity.

Project Description:

Construction of approximately 2,400 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace the existing two-inch water main along Juanita Woods Road from Highway 9 to Igo Way, Igo Way from Juanita Woods Road to Terrace Way, Terrace Way from Igo Way to Brookside Drive, and Brookside Drive from Terrace Way to Highway 9. The project includes Highway 9 bore and jack crossing. Undersized water main is the source of inadequate fire flow capacity.

Estimated Project Cost: \$420,000

WEST PARK AVENUE WATER DISTRIBUTION SYSTEM

Project Code: C-16

Project Title: WEST PARK AVENUE WATER DISTRIBUTION SYSTEM

Background:

The West Park Avenue Water Distribution System, located off Big Basin Way (Highway 236) in Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 2,200 lineal feet of 2-inch galvanized steel water main with undersized 2-inch fire hydrants. The West Park Avenue Water Distribution System provides water service to approximately forty (40) service connections Lyon Zone. Undersized water main is the source of intermittent low water pressure during summer peak-demand periods, and inadequate fire flow capacity.

Project Description:

Construction of approximately 2,200 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace the existing 2-inch water main along West Park Avenue from Upland Drive to Blackstone Drive, and Blackstone Drive from West Park Avenue to the Blackstone Booster Pump Station. Undersized water main is the source of intermittent low water pressure during summer peak-demand periods, and inadequate fire flow capacity.

Estimated Project Cost: \$ 385,000

RAILROAD AVENUE WATER DISTRIBUTION SYSTEM

Project Code: C-17

Project Title: RAILROAD AVENUE WATER DISTRIBUTION SYSTEM

Background:

The Railroad Avenue Water Distribution System, located off Glen Arbor Road in Ben Lomond, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 2,100 lineal feet of 2-inch galvanized steel water main with undersized 2-inch fire hydrants. The Railroad Avenue Water Distribution System provides water service to approximately thirty (30) service connections in the Brookdale Zone. Undersized water main is the source of inadequate fire flow capacity.

Project Description:

Construction of approximately 2,100 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace the existing two-inch water main along Railroad Avenue from Madrone Avenue to Riverside Park Drive, Riverside Park Drive from Madrone Avenue to Maple Avenue, and Maple Avenue from Riverside Park Drive to Glen Arbor Road. Undersized water main is the source of inadequate fire flow capacity.

Estimated Project Cost: \$370,000

LORENZO AVENUE WATER DISTRIBUTION SYSTEM

Project Code: C-18

Project Title: LORENZO AVENUE WATER DISTRIBUTION SYSTEM

Background:

The Lorenzo Avenue Water Distribution System, located off Highway 9 in Ben Lomond, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 2,200 lineal feet of 2-inch galvanized steel water main and undersized 2-inch fire hydrants. The San Lorenzo Avenue Distribution System provides water service to approximately seventy (70) service connections in the Brookdale Zone. Undersized water main is the source of inadequate fire flow capacity.

Project Description:

Construction of approximately 2,200 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace the existing two-inch water main along Lorenzo Avenue from Highway 9 to Woodland Drive; and along Woodland Drive from Lorenzo Avenue to Highway 9. Undersized water main is the source of inadequate fire flow capacity.

Estimated Project Cost: \$385,000

KIPLING AVENUE WATER DISTRIBUTION SYSTEM

Project Code: C-19

Project Title: KIPLING AVENUE WATER DISTRIBUTION SYSTEM

Background:

The Kipling Avenue Water Distribution System, located off Brookside Avenue in the Glen Arbor area of Ben Lomond, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 800 lineal feet of 1½-inch galvanized water main and undersized 2-inch fire hydrants. The Kipling Avenue Water Distribution System provides water service to approximately thirty (30) service connections in the Brookdale Zone. Undersized water main is the source of inadequate fire flow capacity.

Project Description:

Construction of approximately 800 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace the existing 1½-inch water main along Kipling Avenue from Brookside Avenue to the end of the distribution system. Undersized water main is the source of inadequate fire flow capacity.

Estimated Project Cost: \$140,000

SUNNYCROFT ROAD WATER DISTRIBUTION SYSTEM

Project Code: C-20

Project Title: SUNNYCROFT ROAD WATER DISTRIBUTION SYSTEM

Background:

The Sunnycroft Road Water Distribution System, located off Highway 9 in the Glen Arbor area of Ben Lomond, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 1,000 lineal feet of 1-inch and 2-inch galvanized steel water main and undersized 2-inch fire hydrants. The Sunnycroft Road Water Distribution System provides water service to approximately ten (10) service connections in the Brookdale Zone. Undersized water main is the source of inadequate fire flow capacity.

Project Description:

Construction of approximately 1,000 lineal feet of new 6-inch water main and appurtenances thereto. This project would replace existing 1-inch and 2-inch water mains along Sunnycroft Road from Highway 9 to the end of the distribution system. Undersized water main is the source of inadequate fire flow capacity.

Estimated Project Cost: \$150,000

BRACKNEY ROAD WATER DISTRIBUTION SYSTEM

Project Code: C-21

Project Title: BRACKNEY ROAD WATER DISTRIBUTION SYSTEM

Background:

The Brackney Road Water Distribution System, located off Highway 9 in the Glen Arbor area, is part of the original distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 1,700 lineal feet of 1-inch and 2-inch galvanized steel water main and undersized 2-inch fire hydrants. Currently the area is supplied by a 2-inch river crossing. The Brackney Road Water Distribution System provides water service to approximately forty (40) service connections in the Brookdale Zone. This area of the distribution system is also the location of the District's interconnection with Citizens Utilities Company. Undersized water main and river crossing are the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Project Description:

Construction of approximately 1,700 lineal feet of new 6-inch water main and appurtenances. This project would replace existing 1-inch and 2-inch water mains along Brackney Road from Highway 9 to the end of the distribution system, and Bridge Street from Brackney Road to Cottage Avenue. Undersized water main and river crossing are the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Estimated Project Cost: \$215,000

UPPER BIG BASIN WAY WATER DISTRIBUTION SYSTEM

Project Code: C-22

Project Title: UPPER BIG BASIN WAY WATER DISTRIBUTION SYSTEM

Background:

The Upper Big Basin Way Water Distribution System, located on Big Basin Way/SR 236 in Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 3,900 lineal feet of 2- inch and 4-inch galvanized steel water main and undersize 2-inch fire hydrants. The Upper Big Basin Way Water Distribution System provides service to approximately eighty (80) service connections in the Lyon Zone. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Project Description:

Construction of approximately 3,900 lineal feet of new 8-inch water main and appurtenances. This project will replace existing 2/4 inch water main along Big Basin Way starting at Redwood Drive to end of distribution system at Oak Street. This project will be constructed in State Highway 236 and there is a bridge crossing. Undersize water mains are the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Estimated Project Cost: \$975,000

ARDEN AVENUE WATER DISTRIBUTION SYSTEM

Project Code: C-23

Project Title: ARDEN AVENUE WATER DISTRIBUTION SYSTEM

Background:

The Arden Avenue Water Distribution System, located off Glen Arbor Drive in Ben Lomond, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 1,600 lineal feet of 2- inch galvanized steel water main and undersize 2-inch fire hydrants. The Arden Ave Distribution System provides service to approximately seventy-five (75) service connections in the Brookdale Zone. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Project Description:

Construction of approximately 1,600 lineal feet of new 8-inch water main and appurtenances. This project will replace existing 2 inch water main along Arden Avenue and Hermosa Drive starting at Glen Arbor and Arden Way, along Arden Way to Hermosa Ave ending at Glen Arbor creating a loop system. Undersize water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow.

Estimated Project Cost: \$280,000

BLUE RIDGE DRIVE WATER DISTRIBUTION SYSTEM

Project Code: C-24

Project Title: BLUE RIDGE DRIVE WATER DISTRIBUTION SYSTEM

Background:

The Blue Ridge Drive Water Distribution System, located off Highway 9 in North Boulder Creek, is part of the original water distribution system acquired by the District in 1965 from Citizens Utilities Company. The existing distribution system consists of approximately 2,000 lineal feet of 2-inch galvanized steel water main and undersized 2-inch fire hydrants. The Blue Ridge Drive Water Distribution System provides water service to approximately fifty (50) service connections in the Blue Ridge Zone. This part of the distribution system is a high maintenance area and mainline water leaks are frequently experienced. In addition, customers experience intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Project Description:

Construction of approximately 2,000 lineal feet of new 6-inch water main and appurtenances thereto. This project will replace the existing 2-inch water main along Blue Ridge Drive from the Blue Ridge Booster Pump station to the "horseshoe turn." Undersized water main is the source of intermittent low water pressure, interruption of water service, and inadequate fire flow capacity.

Estimated Project Cost: \$350,000

APPENDIX A

SAN LORENZO VALLEY WATER DISTRICT SUMMARY OF COMPLETED PROJECT 1997 CAPITAL IMPROVEMENT PROGRAM

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	NO.	ITEM	
Boulder Creek Surface Water Intake	Huckleberry Booster Pump Station	Bear Creek Road Distribution System	Wildwood Distribution System	Kings Creek Road Distribution System	Blue Ridge Booster Pump Station	Nina Booster Pump Station	Bear Creek Estates River Crossing	Irwin Booster Pump Station Project	North Street River Crossing	Whittier Distribution System	Pasatiempo Well Treatment	Ragain Water Storage Tank	Quail Hollow Distribution System Project	Quail 5 Booster Pump Station & Pipeline	Ralston Booster Pump Station	Blackstone Booster Pump Station	Spring Creek Road River Crossing	Fern Avenue Distribution System	Harmon Water Storage Tank	PROJECT TITLE		
B-11	B-9	B-8	B-5	B-4	В-3	A-19	A-18	A-17	A-16	A-14	A-13	A-12	A-11	A-9	A-6	A-5	A-3	A-2	A-1	PROGRAM	CODE 1997	PROJECT
n/a	\$40,000	\$200,000	\$395,000	\$320,000	\$40,000	\$100,000	\$95,000	\$100,000	\$195,000	\$75,000	\$75,000	\$35,000	\$355,000	\$350,000	\$65,000	\$60,000	\$210,000	\$190,000	n/a	COST	ESTIMATED	
n/a	2007	2005	2002	2005	2007	2001	2001	2004	2001	2006	2006	2003	2002	2003	2004	2006	2001	2000	n/a	DATE	COMPLETION	
Deleted from Program/District	District	District	FEMA 1203	Partial completion	District	District	COP Project	COP Project	FEMA 1203	Partial completion/FEMA 1203	Completed alternative blending project	District	COP Project	COP Project	District	District	COP Project	FEMA 1203	Deleted from Program	NOTES		

	26		25	24	23	22	21
SUBTOTAL 1997 CIP PROJECTS	(Twin Bridges)	BrackneySunnycroft Road Distribution System	Hermosa Avenue Distribution System	Highway 9 Distribution System (Highlands Park)	23 Olympia Booster Pump Station	22 Administration Building Remodel	21 Highway 9 Distribution System (Twin Bridges)
	C-15		C-12	6-0	B-21	B-20	B-13
\$4.005.000	\$310,000		\$90,000	\$95,000	\$75,000	\$250,000	\$285,000
	2002		2003	2002	2003	2009	2002
	FEMA 1203		FEMA 1203	FEMA 1203	Partial completion/CL2 Station/District	Partial completion	FEMA 1203

	\$2.105.000		SUBTOTAL OTHER PROJECTS	
2002 FEMA 1203	\$95,000		8 Highway 9/Highlands	38
2002 COP Project	\$270,000		7 share of Wildwood Project)	37
			Crescent Drive Distribution System (District's	
2002 COP Project	\$330,000	n∕a	6 North too Highlands Park)	36
			Highway 9 Distribution System (Glenn Arbor	
2004 COP Project	\$190,000	n/a	5 Quail Hollow Well 4 Replacement	35
2003 COP Project	\$130,000	n/a	4 Quail Hollow Well 5 Replacement	34
2002 FEMA 1205	\$75,000	n/a	3 Highway 9/Glenn Arbor Road Repair	33
2002 FEMA 1204	\$400,000	n∕a	2 Crescent Drive Distribution System	32
2002 FEMA 1203	\$70,000	n/a	1 Huckleberry Island Distribution System	31
2005 District	\$125,000	n/a	0 Highway 9 Repair Project	30
2005 District	\$220,000	n/a	9 Bear Creek Wastewater Improvements	29
2004 District	\$75,000	n/a	8 Riverdale Park Distribution System (extension)	28
2001 FEMA 1203	\$125,000	n/a	7 Riverdale Park Distribution System (FEMA)	27
			OTHER PROJECTS	

GRAND TOTAL ALL PROJECTS \$6,110,000