

# Sierra Lakes County Water District

## FY 2007-2008 and 2008-2009 Project List

### Sanitary Sewer System

**Project Description: Replace Sewer Mainline MH 10094 to MH 10097**

Item of Work	Unit	Quantity	Priority Unit Price	FY 2007-2008		FY 2008-2009		
				Operating	Capital	Operating	Capital	
Six-inch sanitary sewer mainline	lineal foot	875	\$120				\$105,000	
Four-inch sanitary sewer lateral connection	each	6	\$500				\$3,000	
Manhole Replacement	each	2	\$3,500				\$7,000	
Pavement repair	lineal foot	900	\$60				\$54,000	
Bypass pumping	day	6	\$1,000				\$6,000	
Temporary erosion control	lump sum	1	\$750				\$750	
Engineering/Permitting/Inspection		15%					\$25,313	
<b>Project Total</b>								<b>\$201,063</b>

**Justification:** Television inspection in 2007 shows pipeline has developed "sags" resulting in "reverse" flow of influent, septic conditions and buildup of debris necessitating frequent flushing to maintain flow capacity.

**Project Description: Replace Sewer Mainline MH 10016 (FM Connection) to MH 10002**

Item of Work	Unit	Quantity	Priority Unit Price	FY 2007-2008		FY 2008-2009		
				Operating	Capital	Operating	Capital	
Six-inch sanitary sewer mainline	lineal foot	625	\$120		\$75,000			
Four-inch sanitary sewer lateral connection	each	9	\$500				\$4,500	
Pavement repair	lineal foot	650	\$60		\$39,000			
Bypass pumping	day	5	\$1,000		\$5,000			
Temporary erosion control	lump sum	1	\$750				\$750	
Engineering/Permitting/Inspection		15%					\$18,638	
<b>Project Total</b>								<b>\$142,888</b>

**Justification:** Television inspection in 2007 showed numerous areas of I&I due to pipe cracks and joint gasket failure. Pipeline surges from SPS-2 discharges due to incorrect pipe geometry and pipe diameter transition. Pipe flowline corroded and rough reducing pipe capacity.

**Project Description: Replace Sewer Mainline MH 10007 to MH 10010**

Item of Work	Unit	Quantity	Priority Unit Price	FY 2007-2008		FY 2008-2009		
				Operating	Capital	Operating	Capital	
Six-inch sanitary sewer mainline	lineal foot	450	\$120				\$54,000	
Four-inch sanitary sewer lateral connection	each	3	\$500				\$1,500	
Pavement repair	lineal foot	450	\$60				\$27,000	
Bypass pumping	day	4	\$1,000				\$4,000	
Temporary erosion control	lump sum	1	\$750				\$750	
Engineering/Permitting/Inspection		15%					\$13,088	
<b>Project Total</b>								<b>\$100,338</b>

**Justification:** Television inspection in 2007 shows pipeline has developed "sags" resulting in "reverse" flow of influent, septic conditions and buildup of debris necessitating frequent flushing to maintain flow capacity.

# Sierra Lakes County Water District

## FY 2007-2008 and 2008-2009 Project List

**Project Description: Spot Repairs of Sewer Mainline at Various Locations**

Item of Work	Unit	Quantity	Priority	FY 2007-2008		FY 2008-2009	
				Operating	Capital	Operating	Capital
Six-inch sanitary sewer mainline repairs	each	10	\$1,500	\$15,000			
Engineering/Permitting/Inspection		15%		\$2,250			
<b>Project Total</b>				<b>\$17,250</b>			

**Justification:** Television inspection of pipelines in Spring of 2007 identified isolated areas of I&I due to pipe failure, however overall pipe condition acceptable. In some instances pipe was previously repaired using "grout". Defined locations include between MHs 10043 and 10226, 10222 and SPS-3, adjacent to 10071, 10173 and 10174, 10111 and 10112, 10110 and 10111. Additional locations to be determined.

**Project Description: Repair of Sewer Manholes at Various Locations**

Item of Work	Unit	Quantity	Priority	FY 2007-2008		FY 2008-2009	
				Operating	Capital	Operating	Capital
Line existing manholes (10229, 10216, 10222, 10065)	depth foot	60	\$250		\$15,000		
Rehabilitate manhole channels (locations to be determined)	each	5	\$500		\$2,500		
Engineering/Permitting/Inspection		15%			\$2,625		
<b>Project Total</b>					<b>\$20,125</b>		

**Justification:** Manhole barrels and bases showed leakage during periods of high groundwater in Spring 2007. Grout was injected at some locations in previous years in attempt to control I&I. Repair of corroded manhole channels.

**Project Description: Repair of Sewer Laterals at Various Locations**

Item of Work	Unit	Quantity	Priority	FY 2007-2008		FY 2008-2009	
				Operating	Capital	Operating	Capital
Repair existing laterals at various locations	each	10	\$1,000	\$10,000			
Pavement repair	lineal foot	150	\$50		\$7,500		
Engineering/Permitting/Inspection		15%			\$2,625		
<b>Project Total</b>				<b>\$20,125</b>			

**Justification:** Television inspection in 2007 showed isolated lateral I&I. Main pipelines were otherwise in acceptable condition. Project will investigate and repair laterals as necessary. Identified locations include between MH 10229 and SPS-4, 10220 and 10224, 10175 and 10176 and 10216 and 10217. Additional locations to be determined.

**Project Description: Adjust Sewer Manholes to Street Grade**

Item of Work	Unit	Quantity	Unit Price	FY 2007-2008		FY 2008-2009	
				Operating	Capital	Operating	Capital
Adjust sewer manhole to grade	each	10	\$750	\$7,500		\$7,500	
Engineering/Permitting/Inspection		15%		\$1,125		\$1,125	
<b>Project Total</b>				<b>\$8,625</b>		<b>\$8,625</b>	

**Justification:** Project will begin program to adjust sewer manholes to within 3/8-inch of surrounding asphalt grade to eliminate need for crew to place sand on top of lids and reduce damage to manhole frames and covers from wheel impact loads.

# Sierra Lakes County Water District

## FY 2007-2008 and 2008-2009 Project List

<b>Project Description: Television Inspection and Repair Original Force Main</b>				<b>FY 2007-2008</b>		<b>FY 2008-2009</b>	
Item of Work	Unit	Quantity	Priority Unit Price	Operating	Capital	Operating	Capital
Television Inspection	lineal foot	5000	\$0.80	\$4,000			
Pipeline Repair	each	3	\$2,000	\$6,000			
Air Relief Valve Repair	each	2	\$1,500	\$3,000			
Pavement repair	lineal foot	50	\$60	\$3,000			
Temporary erosion control	lump sum	1	\$750	\$750			
Engineering/Permitting/Inspection		10%		\$1,675			
<b>Project Total</b>				<b>\$18,425</b>			

**Justification:** Inspection will determine condition of original force-main and determine pipeline's suitability as backup forcemain in the event of damage to forcemain currently being used. Project will repair section of pipeline that failed in December 2006 and includes money for other areas if found during inspection. Project also provides funding to service and/or replace air relief valves on both pipelines

<b>Project Description: Miscellaneous Sewer Pump Station Upgrades</b>				<b>FY 2007-2008</b>		<b>FY 2008-2009</b>	
Item of Work	Unit	Quantity	Priority Unit Price	Operating	Capital	Operating	Capital
Replace Transfer Switch @ SPS-3	each	1	\$5,000		\$5,000		
Replace control conduits to SPS-3 wetwell	lineal foot	75	\$50		\$3,750		
Repair Pump Rail Mount System @ SPS-2	lump sum	1	\$1,000		\$1,000		
Engineering/Permitting/Inspection		15%			\$1,463		
<b>Project Total</b>					<b>\$11,213</b>		

**Justification:** Replacement of ~50 year old emergency transfer switch at SPS-3 as availability of replacement parts is limited. Conduits from SPS-3 to control cabinet have failed/collapsed and installation of replacement wiring and/or control lines is not possible. When SPS-2 upgrade was completed, the rail system that holds the pumps in place was not properly anchored to the wetwell walls and ceiling.

<b>Project Description: Replace Pumps and Controllers at SPS-1</b>				<b>FY 2007-2008</b>		<b>FY 2008-2009</b>	
Item of Work	Unit	Quantity	Priority Unit Price	Operating	Capital	Operating	Capital
Replace Pump #1 (FY 2007-2008)	each	1	\$25,000		\$12,000		
Downsize Pump #2 to 20 hp (FY 2008-2009)	each	1	\$25,000				\$18,000
Electric Cabinet Upgrade for Pump #2 (FY 2008-2009)	each	1	\$2,500				\$2,500
Engineering/Permitting/Inspection (split FY 2007-2008 & 2008-2009)		15%			\$1,800		\$3,075
<b>Project Total</b>					<b>\$13,800</b>		<b>\$23,575</b>

**Justification:** Current configuration at SPS-1 is one 20 hp pump and two 40 hp pumps. Normal operations require 20 hp pump resulting in 32,950 hours on small pump and approximately 1,500 hours each on two larger pumps. Project will replace original 20 hp pump and one of the 40 hp pumps with another 20 hp pump. This configuration will provide a more appropriately sized backup pump and allow for alternating pumps reducing run time.

<b>Project Description: Television Inspection of 15,000 lineal feet of Gravity System</b>				<b>FY 2007-2008</b>		<b>FY 2008-2009</b>	
Item of Work	Unit	Quantity	Priority Unit Price	Operating	Capital	Operating	Capital
Six-inch sanitary sewer mainline	lineal foot	15,000	\$0.60	\$9,000		\$9,000	
Engineering/Permitting/Inspection		10%		\$900		\$900	

# Sierra Lakes County Water District FY 2007-2008 and 2008-2009 Project List

Project Total	\$9,900	\$9,900
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Justification: Project will begin 4-year rotation of TV inspection of entire (12 miles) of sanitary sewer system.

# Sierra Lakes County Water District

## FY 2007-2008 and 2008-2009 Project List

### Domestic Water System

**Project Description: Fire Hydrant Replacement**

Item of Work	Unit	Quantity	Priority Unit Price	FY 2007-2008		FY 2008-2009	
				Operating	Capital	Operating	Capital
Replace obsolete fire hydrants	each	10	\$4,000		\$40,000		\$40,000
Engineering/Permitting/Inspection		10%			\$4,000		\$4,000
<b>Project Total</b>					<b>\$44,000</b>		<b>\$44,000</b>

**Justification:** Project will begin program to replace fire hydrants that are no longer serviceable due to age and/or repair parts availability. In some cases, replacement units will increase flow capacity due to larger barrel size. There are a total of 68 fire hydrants in the District

**Project Description: Adjust Water Valve Boxes to Street Grade**

Item of Work	Unit	Quantity	Priority Unit Price	FY 2007-2008		FY 2008-2009	
				Operating	Capital	Operating	Capital
Adjust water valve boxes to grade	each	20	\$400	\$8,000		\$8,000	
Vacuum water valve boxes	each	100	\$20	\$2,000			
Engineering/Permitting/Inspection		10%		\$1,000		\$800	
<b>Project Total</b>				<b>\$11,000</b>		<b>\$8,800</b>	

**Justification:** Project will begin program to adjust water valve boxes to within 3/8-inch of surrounding asphalt grade to reduce damage to valve boxes from wheel impact loads. A number of valve boxes are filled with dirt and rock and staff cannot operate those valves to turn-off water system in the event of planned and/or unplanned outages resulting in larger shutdowns than otherwise necessary.

**Project Description: Miscellaneous Water Pump Station Upgrades**

Item of Work	Unit	Quantity	Priority Unit Price	FY 2007-2008		FY 2008-2009	
				Operating	Capital	Operating	Capital
Pad for emergency generator supports at Treatment Plant	each	4	\$500		\$2,000		
Air Handling and Exhaust System at Treatment Plant	lump sum	1	\$5,000		\$5,000		
Correct Floor Drainage at Treatment Plant	square foot	450	\$10		\$4,500		
Chlorine Analyzer at Treatment Plant	each	1	\$3,000		\$3,000		
Chemical Feed Pumps at Lake Intake Station	each	3	\$2,000		\$6,000		
Engineering/Permitting/Inspection		15%			\$3,075		
<b>Project Total</b>					<b>\$23,575</b>		

**Justification:** Project includes miscellaneous improvements to water stations including: construct concrete bases at each corner for trailer stabilizing jacks, installation of exhaust and air-cooling modifications, paving of breezeway floor to prevent ponding of water in the building and replacement of Chlorine Analyzer equipment because repair/maintenance parts are no longer available. Replacement of chemical feed pumps at the Lake Intake station will allow monitoring with the SCADA system and proportional control of chemical injection depending upon pump settings and standardization of pumps.

# Sierra Lakes County Water District

## FY 2007-2008 and 2008-2009 Project List

### Equipment

**Project Description: Purchase Miscellaneous Equipment and Tools**

Description	Unit	Quantity	Priority Unit Price	FY 2007-2008		FY 2008-2009	
				Operating	Capital	Operating	Capital
Confined Space Safety Equipment	lump sum	1	\$7,500	\$7,500			
Trench compactor	each	1	\$2,500	\$2,500			
Tools	lump sum	1	\$4,000	\$4,000			
<b>Project Total</b>				<b>\$14,000</b>			

**Justification:** As part of Confined Space Program, SLCWD is required to implement a Respiratory Protection Plan, maintain/certify rescue equipment on 6-month basis and prepare other safety programs. Funding will allow purchase of equipment and preparation of documentation as necessary to meet regulatory requirements. When making repairs to pipelines, the compactor will allow compaction of backfill material to prevent future settling of trench (currently borrow compactor from Phoebus Construction) Staff has identified the need for pneumatic and other hand tools, a small pump for dewatering and replacement nozzles for hydro-flush truck and similar equipment to perform maintenance of water and sewer infrastructure.

**Project Description: Upgrade and Training of SLAMS program**

Description	Unit	Quantity	Priority Unit Price	FY 2007-2008		FY 2008-2009	
				Operating	Capital	Operating	Capital
Training and Program Modifications by Andy Reising	days	2	\$750	\$1,500			
Data Input by Mary Hall	hours	150	\$15	\$2,250			
<b>Project Total</b>				<b>\$3,750</b>			

**Justification:** Upgrade of SLAMS data fields to better meet SLCWD needs and training of M&O staff. Continued input of as-built service drawings and other data

**Project Description: Purchase Mid-Size Flush/Vacuum**

Description	Unit	Quantity	Priority Unit Price	FY 2007-2008		FY 2008-2009	
				Operating	Capital	Operating	Capital
Combined Vactor/HydroFlush Truck or Trailer	each	1	\$75,000		\$75,000		

**Justification:** Current hydro-flush truck operates sufficiently to clean sewer pipelines. District Staff relies on quarterly support from Truckee Sanitary District to vacuum/remove solids from wetwells. Pipe repair excavations are done with backhoe which requires additional labor and increases potential of damaging adjacent utilities as compared to vacuum excavation. California law requires use of vactor equipment to excavate in the vicinity of sewer forcemains and/or high voltage power lines. In the event of a sewer pipe break or mechanical failure of a sewage pump station, staff must call TSD or Waters Vacuum Service to transport sewage from one pump station to another. Staff will review equipment options and determine best course of action...trailer mounted or truck mounted