SWEETWATER SPRINGS WATER DISTRICT

TO: Board of Directors **AGENDA NO. V-F**

FROM: Steve Mack, General Manager

Meeting Date: December 3, 2009

SUBJECT: DISCUSSION RE DISTRICT ASSETS

RECOMMENDED ACTION: Receive a report on District assets.

FISCAL IMPACT: none

DISCUSSION:

District assets are the foundation of the Sweetwater Springs Water District. Since its inception in 1992 the District has diligently been bringing District infrastructure up to current standards and has striven to maintain the infrastructure. The Capital Improvement Program (CIP) has programmed additional projects to reduce leaks, improve water quality, improve water pressure and reliability and fire protection to District customers. Tables 1 through 3 list District infrastructure and Table 4 is a history of the projects completed by the District's CIP. This is a first cut effort. Please review the information. Comments, suggestions, corrections, and additional ideas are welcome. Our intention is to put this information on the District's website and to have it available for new Director orientation information.

District Assets

December 3, 2009

Table 1. SSWD Wells and Treatment Facilities

	Year Constructed	Pump/ Motor	Comments
Wells			
El Bonita Well 4	1994	04/02	
El Bonita Well 5	1994	05/06	
El Bonita Well 6	1994	04/04	
Monte Rio Well 4	1986	09/09	
Monte Rio Well 5	1994	09/04	
Treatment Plants			
Highland (Guerneville)			
Filter Plant	2004		
Chlorine Generation	2004		
Monte Rio			
Filter Plant	2001		rehab in 2001; 11/09 inspection indicates needs new rehab ASAP
Chlorine Generation	2004		

Table 2. SSWD Tanks
Guerneville

Tank Name	Type	Capacity	Year built	Zone	Condition
Canyon 6	Redwood	15,000	1990	Main	Fair
Canyon 7	Redwood	20,000	1996	Main	Poor/Fair-has liner
Drake (Redwood Lane)	Bolted Steel	130,000	1997	Main	Good
Gonfotti #1	Bolted Steel	70,000	1997	Main	Good
Gonfotti #2	Bolted Steel	70,000	1997	Main	Good
Highland Park #1	Bolted Steel	355,000	2003	Main	Good
Highland Park #2	Bolted Steel	355,000	1997	Main	Good
Tully (Hay & Bay)	Redwood	10,000	1995	Main	Good
Summit (Lower)	Redwood	20,000	1989	Summit	Good
Upper Canyon 7 Eagle's Nest	Redwood	10,000	1971	Upper Canyon 7	Good, Lined in 2005
Guernewood Heights (Park Avenue)	Redwood	20,000	1964	Guernewood	Good
Hidden Valley	Redwood	15,000	1989	Hidden Valley	Good
Monte Rosa	Bolted Steel	125,000	2003	Monte Rosa	Good
Schoeneman	Plastic	10,000	1989	Schoeneman	Good
Sweetwater	Bolted Steel	10,000	1978	Sweetwater	Good
Upper Canyon 4	Redwood	50,000	1989	Canyon 4	Good
Natoma	Redwood	10,000	1989	Wright	Good
Crespo	Polyethylene	3 @ 2,500 each	2008	Crespo	Good

Monte Rio

Tank Name	Type	Capacity	Year Installed	Zone	Condition
Monte Rio #1	Bolted Steel	120,000	1997	Main	Good
Monte Rio #2	Bolted Steel	180,000	1997	Main	Good
Lower Harrison	Welded Steel	125,000	1959	Main	Fair; looks slightly "rusty" inside
Leppo	Redwood	10,000	1965	Main	Fair
Villa Grande	Bolted Steel	100,000	1997	Villa Grande	Good
Upper School House	Redwood	20,000	1967	Upper School House	Poor; leaks
Northwood	Redwood	26,000	1997	Upper Northwood	Good

Table 3. SSWD Pressure Zones

	# of connections	Booster Pumps
Guerneville System		
Main	2,120	0
Monte Rosa	93	2
Crespo	24	1
Hidden Valley	22	1
Wright Rd.	47	1
Lower Summit	25	2
Guernewood Heights (Park A	48	2
Schoeneman	47	1
Sweetwater	8	2
Upper Canyon 7	14	1
Upper Summit	25	1
Canyon 4	31	1
Santa Rosa	2	1
Total	2,506	16
Monte Rio System		
Main	917	0
Villa Grande	162	2
Upper Schoolhouse	17	1
Upper Northwood	3	1
Total	1,099	4

Table 4. SSWD HISTORY OF CAPITAL IMPROVEMENT PROJECTS

	Mains (ft)	Hydrants	Tanks	Boosters	Wells	Treatment
PHASE I DISTRIBUTION PROJECT						
1993-1994						
Contractor: Underhill Construction						
Replacement of 2,000 ft of 6" main and services connections on Old Cazadero Road.	2,000					
Replacement of 1,740 ft of 6" main and service connections on Rio Nido Road.	1,740					
Replacement of 1,640 ft of 6" main and service connections on River Road.	1,640					
Replacement of 60 ft of 2" main crossing at 14880 River Road.	60					
PHASE I WATER SYSTEM IMPROVEMENT PROJECT						
REPLACEMENT WELLS						
1994						
Three new wells were drilled at the El Bonita Well Field.					3	
The first of the three wells (well #4) was drilled and put into service immediately.						
Contractor: Irwin Well Drillers						
The other two wells (well #5 & #6) were drilled, but would wait until 1996-97 before being put into service.						
New well was drilled at the Monte Rio Well Field.					1	
Contractor: Weeks Drilling						
PHASE I DISTRIBUTION PROJECT 2						
1994-1995						
Contractor: Kirkwood and Bly						
Replaced 1,800 ft of 8" main and service connections on Drake Road.	1,800					
Replaced 2,400 ft of 6" main and service connections on the Guernewood Summer Crossing,	2,400					
Repalced 1,700 ft of 8" main and service connections on Neely Road.	1,700					
Replaced 1,400 ft of 8" main and service connections on Foothill Drive, F Street, and Chapel Drive	1,400					
WATER SYSTEM RELOCATIONS						
(GUERNEVILLE BRIDGE REPLACEMENT)						
1995						
Contractor: L.J.Construction						

	Mains (ft)	Hydrants	Tanks	Boosters	Wells	Treatment
Rerouted and installed 1,040 of 8” main and service connections at the Southeast side of the old Guerneville Bridge, Drake Road Extension and Neely Road.	1,040					
PHASE I SAFE DRINKING WATER BOND LAW PROJECT						
RIVER MEADOWS INTERTIE						
1995						
Contractor: Piazza Construction						
Installed 3,560 ft of 6” main along Hwy 116 from Monte Rio to River Meadows. (The River Meadows Well field was no longer needed and was officially abandoned a few years later.)	3,560					
PHASE II SAFE DRINKING WATER BOND LAW PROJECT						
SUPPLY AND STORAGE IMPROVEMENTS						
1996-1998						
Contractor: Pacific Mechanical Corporation						
Relocated the water treatment facility from El Bonita to the Highland tank site.						1
Installed 3,140 ft of 10” raw water line from the El Bonita well field to the Highland tank site.	3,140					
Installed 1,250 ft of 12” distribution line from the Highland tank site to Old River Road.	1,250					
Replaced well field piping, electrical wiring and controls at El Bonita.						
Put two new wells on line in the Guerneville system. (Well #5 & # 6) These wells had previously been developed in 1994.						
Replaced the Lower Harrison Booster pump system.				1		
Constructed eight new storage tanks and 3,000 ft of main line associated with the tanks. The new tanks provided for approximately 925,000 gallons of additional water storage.	3,000		8			
List of new tanks: Highland Tank, Monte Rio Tanks **(2)**, Gonfotti Tanks **(2)**, Drake Tank (AKA Redwood lane tank), Rio Nido Tank, Villa Grande Tank.						
County of Sonoma, Department of Transportation and Public Works Storm Drain Improvements						
2000-2001						
Contractors: Ghilotti Construction, L.J. Construction, North Bay Construction						

	Mains (ft)	Hydrants	Tanks	Boosters	Wells	Treatment
This project was generated as a result of the damage from the Rio Nido slide that occurred in the late 1990's. This was a County project that was funded by FEMA.						
The project included:						
The installation of 3,600 ft of 8" main 1,080 ft of 4" main and 270 ft of 2" main in the Canyon Three, Willow Road , and Canyon Two area of Rio Nido.	4,950					
Construction of a new Booster pump station on Canyon Three for the Sweetwater tank pressure zone.				1		
Replacement of the Canyon Six tank.			1			
UPPER SUMMIT PRESSURE ZONE						
HYDRO PNEUMATIC TANK						
2001						
Contractor: Richardson Engineering Contractors						
Installed a 6,000 gallon hydro pneumatic tank at the top of McLane Avenue to serve the Upper Summit pressure zone.			1			
CIP PHASE III-A						
2002 – 2003						
Contractor: North Bay Construction						
Replacement of 6,300 ft of 8" main and service connections in downtown Guerneville.	6,300					
Reconfiguration of main and replacement of service connections in downtown Monte Rio.						
Replacement of 3,200 ft of 10" main and service connections along Hwy 116 between Brookside Lane and Summer Crossing.	3,200					
Replacement of 2,300 ft of 8" main and service connections on Hwy 116 east of Monte Rio.	2,300					
Replacement of 12,600 ft of 8" and 6" main and service connections on Moscow Road and River Way.	12,600					
Replacement of 16 fire hydrants.		16				
Addition of 22 fire hydrants.		22				
CIP PHASE III-B						
2003 – 2006						
Contractor: Argonaut Constructors						
Replacement of 2,150 ft of 6" main and service connections on Ridgecrest Drive.	2,150					
Replacement of 1,000 ft of 12" main and service connections on Palo Alto Drive, Sunset Avenue, and Morningside Drive.	1,000					

	Mains (ft)	Hydrants	Tanks	Boosters	Wells	Treatment
Replacement of 2,330 ft of 6” main and service connections on Old Cazadero Road, between the Monte Rosa booster station and the Monte Rosa tank.	2,330					
Replacement of 3,600 ft of 6” main and 280 ft of 2” main on Summit, McLane, Old Monte Rio and Woods Roads.	3,600					
Replace 300 ft of 6” main and service connections along the County viaduct on Drake Road, located just east of Glandy Glen Drive.	300					
Construction of an iron and manganese filter plant in Guerneville.						1
Construction of a hypochlorite generation system facilities at Monte Rio and Guerneville.						2
Replaced the old (1950’s) 270,000 gallon tank with a 355,800 gallon tank at Highland.			1			
Replaced a 20,000 gallon tank with a 124,000 gallon tank at Monte Rosa.			1			
Upgraded three booster pump stations. (Monte Rosa, Park Ave, and Lower Summit.)				3		
Installation of a SCADA system and network server.						
Installation if water level indicators on all wells.						
Various site improvements associated with the above projects.						
Replacement of 1 fire hydrants.		1				
Addition of 15 fire hydrants.		15				
HWY 116, (Crescent Avenue easterly to end of Phase III A)						
Contractor: Piazza Construction						
Replaced approximately 1,900 ft of 8” main and service connections.	1,900					
Addition of 2 fire hydrants.		2				
MONTE RIO TANK SUPPLY LINE						
Contractor: Piazza Construction						
Replaced section of undersized 4”main under Hwy 116 with 8” main, and replaced pipe from there to the Treatment Plant.						
DEPARTMENT OF TRANSPORTATION						
CAL TRANS CULVERT						
Monte Rio						
(Funded by Cal Trans)						
Replaced and relocated main lines and valves at the intersection of Hwy 116/ Church St.						

	Mains (ft)	Hydrants	Tanks	Boosters	Wells	Treatment
Installed new valve and 6” main across intersection of Hwy 116/ C St. (This allowed for the elimination of approximately 150ft of old 4” main.)	150					
CIP PHASE IV-A, Project 1						
Completed August 2009						
Contractor: Piazza Construction.						
Replacement of 2,500 ft of 6” main and service connections on Monte Cristo Avenue. The main was rerouted to eliminate 1,000 ft of pipe and created a loop that eliminated two dead ends. (Actual amount of pipe installed was 1,500 ft).	1,500					
Replacement of 100 ft of 6” main on Hwy 116 at Eastern entrance to Monte Cristo.	100					
Replacement of 1,600 ft of 6” main and service connections on Riverside Drive	1,600					
Replacement of 1,150ft of 6” main and service connections on East Guernewood Road.	1,150					
Replacement of 460 ft of 4” main and service connections on Center Way Extension.						
Replacement of 60 ft of 6” main (Encased in concrete.) at creek crossing from Camino Del Arroyo to Fern Way.	60					
Replacement of two fire hydrants.		2				
Addition of two fire hydrants.		2				
CIP PHASE IV-A, Project 2						
Monte Rio Terraces						
(Completed November 2009)						
Contractor: KAT Construction						
Replacement of 3,850 ft of 6” main and 650 ft of 2” main and service connections on Monte Vista Terrace and Mesa Grande Terrace combined.	3,850					
Replacement of 430 ft of 6” main and service connections on Starrett Hill Road.	430					
Replacement of 2,000 ft of 6” main and service connections on Highland Terrace.	2,000					
Replacement of 910 ft of 6” main and service connections on Alpine Terrace.	910					
Repacement of 370 ft of 2” main and service connections on Delta Way.	370					
Replacement of 120 ft of 2” main and service connections on Laurel Way.	120					
Addition of 9 fire hydrants.		9				
(This project included applying a 2” asphalt overlay as part of a new County requirement.)						
Totals	**77,600**	**69**	**12**	**5**	**4**	**4**