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Summary of Preliminary Cost Estimates

**Appendix L**

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**Table L-1**  
**Distribution System Improvements Preliminary Project Cost Estimates**  
**Dayton Water Master Plan**  
**2609.4050.0**

1= priority 1A  
1.5= priority 1B  
2= priority 2  
3= priority 3

12/17/2010

Priority Code	Project Code	Project & Location(s)	Unit Cost (\$/foot)	Size (in)	Length (ft)	Unit Cost (\$/foot)	Bore Length (ft)	Connections (#)	total est. Connection cost	(\$/each) \$3,000 FHS (each)	(easements, etc) Other Costs	Constr Cost	10% Constr Contingency	16% Eng Cost	10% Legal, Permits, Admin	Total Project	Rounded Total	Prior 1A	Prior 1B	Prior 2	Prior 3
1	T-1	Watershed springs transmission main (springs to below watershed reservoirs)	\$96	8	800			2	\$6,000	0	long term lease, purchase or easements	\$82,800	\$8,280	\$13,248	\$8,280	\$112,608	\$113,000	\$113,000	\$0	\$0	\$0
1	T-2	Watershed transmission main (watershed reservoirs to McDougal Rd)	\$144	12	4,200			4	\$18,000	0	easement	\$622,800	\$62,280	\$99,648	\$62,280	\$847,008	\$847,000	\$847,000	\$0	\$0	\$0
1.5	T-3	Watershed transmission main (McDougal Rd @ wells to PRV station)	\$144	12	6,800	250		4	\$12,000	5	easements outside of ROW	\$1,131,200	\$113,120	\$180,992	\$113,120	\$1,538,432	\$1,538,000	\$0	\$1,538,000	\$0	\$0
1	T-4	Watershed transmission main (PRV Station to 1 <sup>st</sup> /Ferry). Install new main under Yamhill River by directional drilling	\$515	12	1,500			2	\$15,000	2		\$793,500	\$79,350	\$126,960	\$79,350	\$1,079,160	\$1,079,000	\$1,079,000	\$0	\$0	\$0
1	T-5	4 <sup>th</sup> Street transmission main (4 <sup>th</sup> /Ferry to 4 <sup>th</sup> /Mill)	\$120	10	700			3	\$12,000	2		\$102,000	\$10,200	\$16,320	\$10,200	\$138,720	\$139,000	\$139,000	\$0	\$0	\$0
1.5	T-6	Mill Street transmission main (4 <sup>th</sup> /Mill to 3 <sup>rd</sup> /Mill)	\$120	10	450	60		2	\$12,000	1		\$99,000	\$9,900	\$15,840	\$9,900	\$134,640	\$135,000	\$0	\$135,000	\$0	\$0
1.5	T-7A	Hwy 221 Palmer Creek bridge transmission main (Mill Str to Neck Rd), ODOT Bridge crossing as "extra costs"	\$144	12	1,650	50		2	\$45,000	2	\$200,000	\$513,600	\$51,360	\$82,176	\$51,360	\$698,496	\$698,000	\$0	\$698,000	\$0	\$0
n/a	T-7B	Hwy 221 Palmer Creek bridge transmission main (Mill Str to Neck Rd), option of directional drill under creek/beside bridge	\$505	12	1,500	50		2	\$45,000	2		\$833,500	\$83,350	\$133,360	\$83,350	\$1,133,560					
3	T-8	Fletcher Road/Foster Road transmission main	\$120	10	8,200	250		3	\$12,000	16		\$1,169,000	\$116,900	\$187,040	\$116,900	\$1,589,840	\$1,590,000	\$0	\$0	\$0	\$1,590,000
1.5	T-9	Ash Street transmission main (Flower/Church to Ash/9 <sup>th</sup> )	\$120	10	2,100			5	\$15,000	5		\$282,000	\$28,200	\$45,120	\$28,200	\$383,520	\$384,000	\$0	\$384,000	\$0	\$0
1.5	T-10	WTP secondary transmission main (WTP to Church & Flower)	\$144	12	1,100			2	\$12,000	2	easements	\$176,400	\$17,640	\$28,224	\$17,640	\$239,904	\$240,000	\$0	\$240,000	\$0	\$0
1	D-1	9th Street (Ash to Church)	\$96	8	750			2	\$4,000	1		\$79,000	\$7,900	\$12,640	\$7,900	\$107,440	\$107,000	\$107,000	\$0	\$0	\$0
1	D-2	Church Street (9th toward Laurel)	\$96	8	600			2	\$4,000	2		\$67,600	\$6,760	\$10,816	\$6,760	\$91,936	\$92,000	\$92,000	\$0	\$0	\$0
1	D-3	Main Street ( 8th to 7th)	\$96	8	600			2	\$4,000	2		\$67,600	\$6,760	\$10,816	\$6,760	\$91,936	\$92,000	\$92,000	\$0	\$0	\$0
3	D-4	Warmcombe Drive	\$96	8	200			2	\$3,000	1		\$25,200	\$2,520	\$4,032	\$2,520	\$34,272	\$34,000	\$0	\$0	\$0	\$34,000
2	D-5	5th Street (Oak to Church)	\$96	8	350			2	\$5,000	1		\$41,600	\$4,160	\$6,656	\$4,160	\$56,576	\$57,000	\$0	\$0	\$57,000	\$0
1	D-6	Main Street Replacement (2nd to 3rd)	\$96	8	390	60		2	\$6,000	1		\$76,440	\$7,644	\$12,230	\$7,644	\$103,958	\$104,000	\$104,000	\$0	\$0	\$0
1	D-7	Main Street Replacement (3rd to 4th)	\$96	8	360			2	\$5,000	1		\$42,560	\$4,256	\$6,810	\$4,256	\$57,882	\$58,000	\$58,000	\$0	\$0	\$0
1	D-8	3rd Street (Church to Main)	\$120	10	350	60		2	\$6,000	1		\$81,000	\$8,100	\$12,960	\$8,100	\$110,160	\$110,000	\$110,000	\$0	\$0	\$0
1	D-9	3rd Street (Main to Ferry)	\$96	8	350	60		2	\$8,000	1		\$74,600	\$7,460	\$11,936	\$7,460	\$101,456	\$101,000	\$101,000	\$0	\$0	\$0
2	D-10	Church Street (west of 2nd)	\$96	8	350			1	\$3,000	2		\$42,600	\$4,260	\$6,816	\$4,260	\$57,936	\$58,000	\$0	\$0	\$58,000	\$0
1	D-11	Alder Street (4th to 3rd)	\$96	8	400	60		2	\$6,000	2		\$80,400	\$8,040	\$12,864	\$8,040	\$109,344	\$109,000	\$109,000	\$0	\$0	\$0
1	D-12	Palmer Creek crossing (Option 1: Palmer Ln to 1st)	\$200	8	800	60		2	\$8,000	1	wetland permitting	\$201,000	\$20,100	\$32,160	\$20,100	\$273,360	\$273,000	\$273,000	\$0	\$0	\$0
n/a	D-13	Palmer Creek crossing (Option 2: Palmer Ln to Water Str, direction	\$500	8	1150			2	\$8,000	1		\$586,000	\$58,600	\$93,760	\$58,600	\$796,960					
3	D-14	Neck Road (Hwy 221 to Water Street)	\$120	10	1100	60		2	\$5,000	4		\$179,000	\$17,900	\$28,640	\$17,900	\$243,440	\$243,000	\$0	\$0	\$0	\$243,000
1.5	D-15	McDougal Road rural waterline	\$35	2	3,800			1	\$4,500			\$137,500	\$13,750	\$22,000	\$13,750	\$187,000	\$187,000	\$0	\$187,000	\$0	\$0
1.5	D-16	Thompson Road rural waterline	\$96	8	1,200			2	\$4,000	1		\$122,200	\$12,220	\$19,552	\$12,220	\$166,192	\$166,000	\$0	\$166,000	\$0	\$0
1.5	D-16	Thompson Road rural waterline	\$35	2	1,300			1	\$2,500			\$48,000	\$4,800	\$7,680	\$4,800	\$65,280	\$65,000	\$0	\$65,000	\$0	\$0
1.5	D-17	Fletcher Road rural waterline (interim repair till annexation)	\$35	2	3,000	100		1			directional drill under Hwy	\$155,000	\$15,500	\$24,800	\$15,500	\$210,800	\$211,000	\$0	\$211,000	\$0	\$0
3	D-18	East Dayton Industrial Area waterline	\$144	12	4,200			2	\$6,000	5		\$625,800	\$62,580	\$100,128	\$62,580	\$851,088	\$851,000	\$0	\$0	\$0	\$851,000
1	D-19	Over-length service modifications (Foster Rd, Watershed, McDougal Rd)							\$15,000			\$15,000	\$1,500	\$2,400	\$1,500	\$20,400	\$20,000	\$20,000	\$0	\$0	\$0
1	D-20	Master meter on rural waterline (Fletcher Rd)							\$5,500			\$5,500	\$550	\$880	\$550	\$7,480	\$7,000	\$7,000	\$0	\$0	\$0
1	D-20	Master meter on rural waterline (McDougal Rd)							\$5,500			\$5,500	\$550	\$880	\$550	\$7,480	\$7,000	\$7,000	\$0	\$0	\$0
1	D-20	Master meter on rural waterline (Thompson Lane)							\$5,500			\$5,500	\$550	\$880	\$550	\$7,480	\$7,000	\$7,000	\$0	\$0	\$0
1.5	D-21	Commercial services at McDougal Corner							\$6,000			\$6,000	\$600	\$960	\$600	\$8,160	\$8,000	\$0	\$8,000	\$0	\$0
Transmission & Distribution Totals												\$8,493,600	\$849,360	\$1,358,976	\$849,360	\$11,551,296	\$9,730,000	\$3,265,000	\$3,632,000	\$115,000	\$2,718,000
Totals from Table L-2																\$2,525,000	\$1,889,000	\$566,000	\$70,000	\$0	
Grand Totals																\$12,255,000	\$5,154,000	\$4,198,000	\$185,000	\$2,718,000	

**Table L-2**

**Water System Improvements Preliminary Project Cost Estimates**

**Dayton Water Master Plan**

1609.4050.0 12/17/2010

Priority Code	Project Code	Project & Location(s)	Other Costs	Constr Cost	15% Constr Contingency	20% Eng Cost	10% Legal, Permits Easement, Admin	Total Project	Rounded Total	Prior 1A	Prior 1B	Prior 2	Prior 3
		<b>Non-Transmission/Distribution System Improvements</b>											
1.5	S-2	Water Rights Permits (Wellfield Wells), investigation study for potential new well sites for water rights transfers	\$12,000		\$0	\$0	\$0	\$12,000	\$12,000	\$0	\$12,000	\$0	\$0
1.5	S-3	Water Rights Certificates (In-Town & McDougal Wells), investigation study for potential new well sites for water rights transfers	\$10,000		\$0	\$0	\$0	\$10,000	\$10,000	\$0	\$10,000	\$0	\$0
1.5	S-4	If Watershed Springs cannot be upgraded to meet State standards, investigation study on potential for transfer of spring water rights to wells drilled at same site	\$8,000		\$0	\$0	\$0	\$8,000	\$8,000	\$0	\$8,000	\$0	\$0
1	S-5	Investigate purchase of existing water rights. Investigation study to develop map of all property around City & wellfield with existing senior water rights, contact property owners to determine interest in selling water rights. Purchase property with senior water rights as it becomes available for sale.	\$15,000		\$0	\$0	\$0	\$15,000	\$15,000	\$15,000	\$0	\$0	\$0
2	S-6	Water Management & Conservation Plan update when required by WRD.	\$25,000		\$0	\$0	\$0	\$25,000	\$25,000	\$0	\$0	\$25,000	\$0
1	S-7	Update City's emergency water restriction ordinances & resolutions.	TBD										
1	S-8	Watershed Springs upgrades (see Chapter 7)											
1	S-9	Watershed long-term lease, exclusive easements and/or property purchase/acquisition.	TBD										
1	S-10	Hazardous tree removal at watershed springs/sand filter sites	\$18,000		\$0	\$0	\$0	\$18,000	\$18,000	\$18,000	\$0	\$0	\$0
1	S-11	Install on-site auxiliary power generators & automatic transfer switches at all City wells (9 wells, excluding the Post Office Well).		\$365,000	\$54,750	\$73,000	\$36,500	\$529,250	\$529,000	\$529,000	\$0	\$0	\$0
1	S-12	Production testing and evaluation of all City wells by hydrogeologist to verify long term production estimates and determine recommended schedule for rehabilitation at each well (every 5 years).	\$10,000		\$0	\$0	\$0	\$10,000	\$10,000	\$10,000	\$0	\$0	\$0
1.5	S-13	McDougal Wells, replace any existing steel discharge lines between wells & watershed transmission main (±300')		\$20,000	\$3,000	\$4,000	\$2,000	\$29,000	\$29,000	\$0	\$29,000	\$0	\$0
1.5	S-14	McDougal Wells, chlorination system upgrades (after completion of watershed spring improvements)		\$20,000	\$3,000	\$4,000	\$2,000	\$29,000	\$29,000	\$0	\$29,000	\$0	\$0
1	S-15	Wellfield wells, rotating rehabilitation program, one well per year (to address production losses due to iron bacteria bio-fouling)		\$30,000	\$4,500	\$6,000	\$3,000	\$43,500					
1	S-16	Wellfield Well 1, VFD control upgrades		\$50,000	\$7,500	\$10,000	\$5,000	\$72,500	\$73,000	\$73,000	\$0	\$0	\$0
1	S-17	Wellfield Well 3, VFD control upgrades		\$50,000	\$7,500	\$10,000	\$5,000	\$72,500	\$73,000	\$73,000	\$0	\$0	\$0
2	S-18	Resolution of support for concept of further investigation of regional water source and/or treatment options	TBD										
1.5	S-19	Contact McMinnville to initiate discussions regarding potential intertie to McMinnville water system to allow Dayton to purchase supplemental water during period of shortage.	TBD										
1	WT-2	Install clearwell and influent pump station at WTP to ensure adequate backwash flowrates		\$300,000	\$45,000	\$60,000	\$30,000	\$435,000	\$435,000	\$435,000	\$0	\$0	\$0
1.5	WT-3A	Install third Dayton distribution pump at WTP		\$75,000	\$11,250	\$15,000	\$7,500	\$108,750	\$109,000	\$0	\$109,000	\$0	\$0
1.5	WT-3B	Fire pump improvements at WTP		\$50,000	\$7,500	\$10,000	\$5,000	\$72,500	\$73,000	\$0	\$73,000	\$0	\$0
1	WT-4A	Watershed Spring improvements & chlorination to address potential GWUDI issues (Alt 1B, Section 7.4.1), Lower area		\$310,000	\$46,500	\$62,000	\$31,000	\$449,500	\$450,000	\$450,000	\$0	\$0	\$0
1	WT-4B	Watershed Spring improvements & chlorination to address potential GWUDI issues (Alt 1B, Section 7.4.1), Upper area		\$192,000	\$28,800	\$38,400	\$19,200	\$278,400	\$278,000	\$278,000	\$0	\$0	\$0
2	WT-5	Alternative 1C Watershed Spring improvements (wells, only if Alternative 1B not successful)	TBD										
2	WT-6	Adopt resolution of support for regional WTP option adjacent to Dayton.	TBD										
1	R-2	Install on-site auxiliary power generators & automatic transfer switches at all City wells to allow wells to provide standby storage credit to system (9 wells, excluding the Post Office Well, see Chapter 6)	see S-11										
1	R-3	Hazardous tree removal at watershed reservoir site	\$8,000		\$0	\$0	\$0	\$8,000	\$8,000	\$8,000	\$0	\$0	\$0
1.5	R-4	Recoating existing 600,000 gallon steel watershed reservoir		\$204,000	\$30,600	\$40,800	\$20,400	\$295,800	\$296,000	\$0	\$296,000	\$0	\$0
2	R-5	New finish water pump station at WTP site (anticipated at or after end of planning period), dead storage conversion	TBD										
2	G-1	Water Master Plan Update (±2020)	\$45,000		\$0	\$0	\$0	\$45,000	\$45,000	\$0	\$0	\$45,000	\$0
			\$151,000	\$1,666,000	\$249,900	\$333,200	\$166,600	\$2,566,700	\$2,525,000	\$1,889,000	\$566,000	\$70,000	\$0