



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Simpson, Brown, Helgeson, Manning and Mital
FROM: Mel Damewood, Engineering Manager
DATE: May 27, 2016
SUBJECT: Preliminary Draft – Water & Electric Capital Improvement Plans (CIPs)
OBJECTIVE: Information Only

Issue

Attached are drafts of EWEB's Water and Electric Capital Improvement Plans (CIPs) for Board information and comment. Based on Board feedback, on July 19, 2016 EWEB management will present to the Board adjusted versions of these 10-Year (2017-2026) Electric and Water Capital Improvement Plans for approval. These Capital Improvement Plans will be used as inputs to EWEB's Long-Term Financial Plan (LTFP).

Background

Both the Water and Electric utilities have invested in infrastructure and system planning (a.k.a. Master Plans). Similar to previous capital plans, spending is classified by three types, including the following:

Type 1 capital is a collection of routine capital work under specific categories (Transmission, Distribution, Buildings). This work is funded through rates. Examples of Type 1 capital include pole replacements, water main replacements, etc.

Type 2 capital is for discrete projects with defined time periods and lifetime expenditures over \$1 million. Depending on the project, this work can be funded through either rate or bond funds. Examples of Type 2 capital include the Downtown Electric Network, and Hayden Bridge Filter Improvements.

Type 3 capital is for large strategic programs with long-term impacts. These programs are generally bond-financed and include examples like Carmen-Smith Re-Licensing and Alternative Water Supply.

Discussion

Water Utility

The proposed ten year Water Capital Improvement Plan totals \$229 million. This is slightly higher (~2%) higher than last year. This is due to minor adjustments throughout the plan and a large reservoir project entering the plan in 2026. Of the total, approximately \$66 million (29%) is associated with the proposed new water filtration plant. This did not change from last year.

Over the course of 2016 and early 2017 staff will be further defining this project and receiving updated cost estimates for the new filtration plant and related work. These updated estimates have the potential to increase or decrease the capital plan. Over the next year, staff will be providing regular updates to the Board to ensure everyone is aware of any potential changes.

Electric Utility

The Electric Capital Improvement Plan identifies approximately \$356 million in spending projects over the next ten (10) years, compared to last year's plan of \$403 million, a 12% reduction. Reductions in estimated Carmen Smith Relicensing costs account for this reduction. To reduce further borrowing, \$6.5 million in bond funding intended for the Downtown Network Rehabilitation Project has been redirected to the Carmen Smith Relicensing Project. To accommodate this shift, additional reductions will be pursued over the next month to minimize or eliminate any pricing (rate) impact of Type 1 or Type 2 capital projects. Several reduction opportunities exist, including a review of investments in Generation assets that may be changed as part of EWEB's long-term resource mix, adjustments in Transmission & Distribution non-compulsory spending, reprioritization of information system investments, along with other potential changes. The target will be to eliminate at least \$10 million from the ten (10) year period, mostly in the first five (5) years.

TBL Assessment

No Triple-Bottom-Line (TBL) assessment has been completed for the CIPs in aggregate, although some projects have TBL assessments.

Recommendation

Management recommends that the Board consider the issues raised in this memorandum as the Capital Improvement Plans and Long-Term Financial Plans are updated over the next thirty (30) days, and provide feedback to Mel Damewood and Sue Fahey. As in previous CIP's, the first year of the 10-year CIP will be the Capital Budget for 2017.

Requested Board Motion/Action

No Board action is requested in this Board memorandum.

If you have any question please contact Mel Damewood at 541-685-7145 or email mel.damewood@eweb.org

**Draft
Water Capital Improvement Plan: 2017-2026**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	5 Year Total 2017-2021	5 Year Total 2022-2026	10 Year Total
Funds Available													
Capital Reserve Balance (Includes Bond Funds)- Prior Year End	\$ 18,500,000	\$ 15,585,000	\$ 54,759,000	\$ 40,425,000	\$ 17,343,000	\$ 16,901,000	\$ 14,318,000	\$ 9,706,000	\$ 5,988,000	\$ 4,506,000	\$ 146,612,000	\$ 51,419,000	\$ 198,031,000
<u>Annual Revenue</u>													
Customer Contributions	\$ 1,133,000	\$ 1,167,000	\$ 1,202,000	\$ 1,238,000	\$ 1,275,000	\$ 1,313,000	\$ 1,353,000	\$ 1,393,000	\$ 1,435,000	\$ 1,478,000	\$ 6,015,000	\$ 6,972,000	\$ 12,987,000
Water Rates	\$ 11,186,000	\$ 11,037,000	\$ 11,343,000	\$ 11,603,000	\$ 11,310,000	\$ 12,290,000	\$ 10,297,000	\$ 10,952,000	\$ 13,849,000	\$ 14,689,000	\$ 56,479,000	\$ 62,077,000	\$ 118,556,000
SDC	\$ 412,000	\$ 424,000	\$ 437,000	\$ 450,000	\$ 464,000	\$ 478,000	\$ 492,000	\$ 507,000	\$ 522,000	\$ -	\$ 2,187,000	\$ 1,999,000	\$ 4,186,000
Interest Earnings on Capital Reserve Fund											\$ -	\$ -	\$ -
Interest Earnings on Bond Reserve Fund											\$ -	\$ -	\$ -
Subtotal - Annual Revenue	\$ 12,731,000	\$ 12,628,000	\$ 12,982,000	\$ 13,291,000	\$ 13,049,000	\$ 14,081,000	\$ 12,142,000	\$ 12,852,000	\$ 15,806,000	\$ 16,167,000	\$ 64,681,000	\$ 71,048,000	\$ 135,729,000
Total Funds	\$ 31,231,000	\$ 28,213,000	\$ 67,741,000	\$ 53,716,000	\$ 30,392,000	\$ 30,982,000	\$ 26,460,000	\$ 22,558,000	\$ 21,794,000	\$ 20,673,000	\$ 211,293,000	\$ 122,467,000	\$ 333,760,000

Expenditures

Type 1 - General Capital (rate funded)

Source - Intake and Hayden Bridge	\$ 1,030,000	\$ 477,000	\$ 328,000	\$ 338,000	\$ 348,000	\$ 358,000	\$ 369,000	\$ 380,000	\$ 391,000	\$ 403,000	\$ 2,521,000	\$ 1,901,000	\$ 4,422,000
Distribution - Pump Stations & Reservoirs	\$ 1,339,000	\$ 1,114,000	\$ 929,000	\$ 1,182,000	\$ 696,000	\$ 776,000	\$ 799,000	\$ 823,000	\$ 848,000	\$ 874,000	\$ 5,260,000	\$ 4,120,000	\$ 9,380,000
Distribution - Pipelines	\$ 4,378,000	\$ 4,986,000	\$ 5,813,000	\$ 5,200,000	\$ 5,356,000	\$ 5,517,000	\$ 5,682,000	\$ 5,852,000	\$ 6,028,000	\$ 6,209,000	\$ 25,733,000	\$ 29,288,000	\$ 55,021,000
Distribution - Services & Meters	\$ 1,803,000	\$ 1,857,000	\$ 1,912,000	\$ 1,970,000	\$ 2,029,000	\$ 2,090,000	\$ 2,152,000	\$ 2,217,000	\$ 2,283,000	\$ 2,352,000	\$ 9,571,000	\$ 11,094,000	\$ 20,665,000
Information Technology	\$ 196,000	\$ 424,000	\$ 325,000	\$ 311,000	\$ 126,000	\$ 363,000	\$ 209,000	\$ 181,000	\$ 321,000	\$ 279,000	\$ 1,382,000	\$ 1,353,000	\$ 2,735,000
Buildings & Land	\$ 90,000	\$ 108,000	\$ 117,000	\$ 113,000	\$ 108,000	\$ 225,000	\$ 144,000	\$ 144,000	\$ 144,000	\$ 144,000	\$ 536,000	\$ 801,000	\$ 1,337,000
Fleet	\$ 610,000	\$ 626,000	\$ 641,000	\$ 657,000	\$ 674,000	\$ 690,000	\$ 708,000	\$ 725,000	\$ 708,000	\$ 708,000	\$ 3,208,000	\$ 3,539,000	\$ 6,747,000
Total Type 1 Expenditures	\$ 9,446,000	\$ 9,592,000	\$ 10,065,000	\$ 9,771,000	\$ 9,337,000	\$ 10,019,000	\$ 10,063,000	\$ 10,322,000	\$ 10,723,000	\$ 10,969,000	\$ 48,211,000	\$ 52,096,000	\$ 100,307,000

Type 2 - Rehabilitation & Expansion Projects (rate & bond funded)

Rate Funded Type 2 Projects

Information Technology	\$ 1,303,000	\$ 963,000	\$ 304,000	\$ 39,000	\$ 255,000	\$ 18,000	\$ 234,000	\$ 630,000	\$ 63,000	\$ 720,000	\$ 2,864,000	\$ 1,665,000	\$ 4,529,000
	\$ -	\$ -	\$ -	\$ -	\$ 216,000	\$ -	\$ -	\$ -	\$ 63,000	\$ -	\$ 216,000	\$ 63,000	\$ 279,000
Subtotal - Rate Funded Projects	\$ 1,303,000	\$ 963,000	\$ 304,000	\$ 39,000	\$ 471,000	\$ 18,000	\$ 234,000	\$ 630,000	\$ 126,000	\$ 720,000	\$ 3,080,000	\$ 1,728,000	\$ 4,808,000

Bond Eligible Type 2 Projects

Source - Intake and Hayden Bridge	\$ 3,090,000	\$ 2,440,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,530,000	\$ -	\$ 5,530,000
Distribution - Pump Stations & Reservoirs	\$ 1,277,000	\$ 1,316,000	\$ 2,513,000	\$ 6,078,000	\$ 4,405,000	\$ 6,627,000	\$ 6,457,000	\$ 5,618,000	\$ 6,439,000	\$ 8,063,000	\$ 15,589,000	\$ 33,204,000	\$ 48,793,000
Distribution - Pipelines	\$ -	\$ 1,061,000	\$ 1,093,000	\$ 563,000	\$ 1,159,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,876,000	\$ -	\$ 3,876,000
											\$ -	\$ -	\$ -
Subtotal - Bond Eligible Projects	\$ 4,367,000	\$ 4,817,000	\$ 3,606,000	\$ 6,641,000	\$ 5,564,000	\$ 6,627,000	\$ 6,457,000	\$ 5,618,000	\$ 6,439,000	\$ 8,063,000	\$ 24,995,000	\$ 33,204,000	\$ 58,199,000
Percent funded by rates	10%	10%	27%	27%	27%	34%	0%	0%	0%	0%			

Total Type 2 Expenditures	\$ 5,670,000	\$ 5,780,000	\$ 3,910,000	\$ 6,680,000	\$ 6,035,000	\$ 6,645,000	\$ 6,691,000	\$ 6,248,000	\$ 6,565,000	\$ 8,783,000	\$ 28,075,000	\$ 34,932,000	\$ 63,007,000
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Type 3 - Strategic Projects & Programs (bond funded)

Alternative Water Supply	\$ 530,000	\$ 5,782,000	\$ 19,341,000	\$ 19,922,000	\$ 20,519,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 66,094,000	\$ -	\$ 66,094,000
											\$ -	\$ -	\$ -
Total Type 3 Expenditures	\$ 530,000	\$ 5,782,000	\$ 19,341,000	\$ 19,922,000	\$ 20,519,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 66,094,000	\$ -	\$ 66,094,000

Total Expenditures	\$ 15,646,000	\$ 21,154,000	\$ 33,316,000	\$ 36,373,000	\$ 35,891,000	\$ 16,664,000	\$ 16,754,000	\$ 16,570,000	\$ 17,288,000	\$ 19,752,000	\$ 142,380,000	\$ 87,028,000	\$ 229,408,000
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Predicted YE Capital Reserve Bal. (Includes Bond Funds)^{1,2}	\$ 15,585,000	\$ 54,759,000	\$ 40,425,000	\$ 17,343,000	\$ 16,901,000	\$ 14,318,000	\$ 9,706,000	\$ 5,988,000	\$ 4,506,000	\$ 921,000			
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¹ Anticipated borrowing in 2018 (\$47,700,000) and 2021 (\$22,400,000)

² AWS Transfer in 2019 (\$6,000,000)

Attachment 1

Electric Capital Improvement Plan: 2017-2026

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>5-Year Total</u> <u>2017-2021</u>	<u>5-Year Total</u> <u>2022-2026</u>	<u>10-Year Total</u>
General Funding													
Capital Reserve Balance	\$20,000,000	\$18,445,000	\$17,299,000	\$18,120,000	\$14,694,000	\$10,239,000	\$7,478,500	\$7,885,500	\$10,120,000	\$10,435,000	\$20,000,000	\$10,239,000	\$20,000,000 (a)
Electric Rates - Operational Funding	\$18,665,000	\$18,665,000	\$18,665,000	\$18,665,000	\$18,665,000	\$18,665,000	\$18,665,000	\$18,665,000	\$18,665,000	\$18,665,000	\$93,325,000	\$93,325,000	\$186,650,000
Customer-Driven Capital Re-Imbursement	\$4,026,000	\$4,102,000	\$4,178,000	\$4,254,000	\$4,330,000	\$4,415,500	\$4,501,000	\$4,586,500	\$4,672,000	\$4,672,000	\$20,890,000	\$22,847,000	\$43,737,000
Interest Earnings on Reserve Fund (0.4% of Reserve Balance)	\$61,000	\$74,000	\$69,000	\$72,000	\$59,000	\$41,000	\$30,000	\$32,000	\$40,000	\$42,000	\$335,000	\$185,000	\$520,000
Total Funds:	\$42,752,000	\$41,286,000	\$40,211,000	\$41,111,000	\$37,748,000	\$33,360,500	\$30,674,500	\$31,169,000	\$33,497,000	\$33,814,000	\$134,550,000	\$126,596,000	\$250,907,000
Type 1 - General Capital													
Electric Infrastructure - Generation	\$1,196,000	\$1,635,000	\$717,000	\$2,210,000	\$1,585,000	\$1,115,000	\$180,000	\$120,000	\$120,000	\$120,000	\$7,343,000	\$1,655,000	\$8,998,000
Customer-Driven Capital Expense	\$4,230,000	\$4,310,000	\$4,390,000	\$4,470,000	\$4,550,000	\$4,640,000	\$4,730,000	\$4,820,000	\$4,910,000	\$5,010,000	\$21,950,000	\$24,110,000	\$46,060,000
Electric Infrastructure - Transmission & Distribution	\$5,940,000	\$5,780,000	\$5,870,000	\$6,210,000	\$6,330,000	\$6,460,000	\$6,590,000	\$6,720,000	\$6,850,000	\$6,980,000	\$30,130,000	\$33,600,000	\$63,730,000
Information Services (IS) - Shared & Electric	\$494,000	\$2,128,000	\$1,779,000	\$2,127,000	\$1,174,000	\$1,197,000	\$954,000	\$823,000	\$1,464,000	\$1,499,000	\$7,702,000	\$5,937,000	\$13,639,000
General Plant - Buildings & Land	\$774,000	\$492,000	\$533,000	\$515,000	\$492,000	\$572,000	\$656,000	\$656,000	\$650,000	\$650,000	\$2,806,000	\$3,184,000	\$5,990,000
General Plant - Fleet	\$1,258,000	\$1,289,000	\$1,322,000	\$1,355,000	\$1,388,000	\$1,423,000	\$1,459,000	\$1,495,000	\$1,533,000	\$1,533,000	\$6,612,000	\$7,443,000	\$14,055,000
Total Type 1 Net Expenditures	\$13,892,000	\$15,634,000	\$14,611,000	\$16,887,000	\$15,519,000	\$15,407,000	\$14,569,000	\$14,634,000	\$15,527,000	\$15,792,000	\$76,543,000	\$75,929,000	\$152,472,000
Type 2 - Rehabilitation & Expansion Projects													
<u>Type 2 - Bond (Non-Rate) Funds Allocated</u>													
Downtown Distribution Network Bonds											\$0	\$0	\$0
LTD EmX Project (Electric)											\$0	\$0	\$0
Total Type 2 Bond (Non-Rate) Funds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<u>Type 2 - Rehabilitation & Expansion Project Expenditures</u>													
Downtown Distribution Network	\$2,000,000	\$1,500,000	\$2,000,000	\$1,500,000	\$2,000,000	\$1,500,000	\$2,000,000	\$1,500,000	\$2,000,000	\$1,500,000	\$10,500,000	\$8,500,000	\$17,500,000
LTD EmX Project (Electric)											\$0	\$0	\$0
Advanced Meters (Electric)	\$375,000	\$688,000	\$750,000	\$750,000	\$750,000	\$650,000	\$525,000	\$525,000	\$525,000	\$525,000	\$3,313,000	\$2,750,000	\$6,063,000
Generation - Type 2 Strategic Project(s)	\$0	\$275,000	\$20,000	\$600,000	\$0	\$4,895,000	\$2,125,000	\$0	\$3,200,000	\$1,100,000	\$895,000	\$11,320,000	\$12,215,000
Electric T & D - Type 2 Strategic Project(s)	\$2,000,000	\$1,000,000	\$500,000	\$5,000,000	\$4,500,000	\$3,250,000	\$2,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$13,000,000	\$10,250,000	\$23,250,000
Information Technology - Type 2 Strategic Project(s)	\$6,040,000	\$4,890,000	\$4,210,000	\$1,680,000	\$4,740,000	\$180,000	\$1,070,000	\$2,890,000	\$310,000	\$3,380,000	\$21,560,000	\$7,830,000	\$29,390,000
Type 2 Capital Expenditures (Bond, Customer, & Rate Funded)	\$10,415,000	\$8,353,000	\$7,480,000	\$9,530,000	\$11,990,000	\$10,475,000	\$8,220,000	\$6,415,000	\$7,535,000	\$8,005,000	\$47,768,000	\$40,650,000	\$88,418,000
Type 2 - Rate-Funded Capital Expenditures	\$10,415,000	\$8,353,000	\$7,480,000	\$9,530,000	\$11,990,000	\$10,475,000	\$8,220,000	\$6,415,000	\$7,535,000	\$8,005,000	\$47,768,000	\$40,650,000	\$88,418,000
Type 1 + Type 2 Rate-Funded Capital Expenditures	\$24,307,000	\$23,987,000	\$22,091,000	\$26,417,000	\$27,509,000	\$25,882,000	\$22,789,000	\$21,049,000	\$23,062,000	\$23,797,000	\$124,311,000	\$116,579,000	\$240,890,000
Type 3 - Strategic Projects & Programs													
<u>Type 3 - Bond (Non-Rate) Funds Allocated</u>													
Carmen-Smith Dedicated Funds	\$14,000,000	\$22,000,000	\$24,000,000	\$17,000,000	\$17,000,000	\$11,000,000	\$5,000,000	\$3,000,000	\$2,000,000	\$0	\$94,000,000	\$21,000,000	\$115,000,000
<u>Type 3 - Expenditures</u>													
Carmen-Smith Expenditures	\$14,000,000	\$22,000,000	\$24,000,000	\$17,000,000	\$17,000,000	\$11,000,000	\$5,000,000	\$3,000,000	\$2,000,000	\$0	\$94,000,000	\$21,000,000	\$115,000,000
Total Expenditures	\$38,307,000	\$45,987,000	\$46,091,000	\$43,417,000	\$44,509,000	\$36,882,000	\$27,789,000	\$24,049,000	\$25,062,000	\$23,797,000	\$218,311,000	\$137,579,000	\$355,890,000
Predicted Year-End Reserve Balance	\$18,445,000	\$17,299,000	\$18,120,000	\$14,694,000	\$10,239,000	\$7,478,500	\$7,885,500	\$10,120,000	\$10,435,000	\$10,017,000	\$10,239,000	\$10,017,000	\$10,017,000
(a) - Capital Reserve Uses Starting Value											End of 2021	End of 2026	End of 2026
Transfer to Capital Reserve Needed													\$9,983,000