

Clearwood Homeowners Association

Yelm, Washington

Water Reserves Reserve Study Update
Level III: Update with no visual site Inspection

For Period Beginning: January 1, 2017

For Period Ending: December 31, 2017

Date Prepared: March 22, 2016

Prepared by Ben Budde

Clearwood Treasurer and Finance Committee Chairman

Association: Clearwood

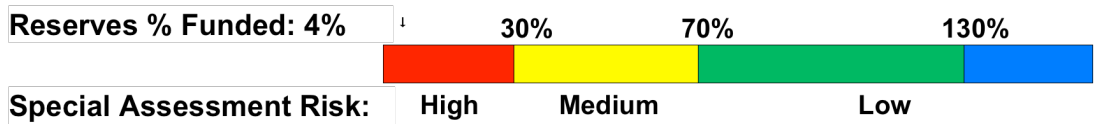
Location: Yelm, WA

Number of Units: 1355

Report Period: January 1, 2017 through December 31, 2017

Findings as of 1/1/2017

Projected Starting Reserve Balance:	\$217,600
Current Fully Funded Reserve Balance:	\$5,706,985
Average Reserve Deficit Per Unit:	\$4,051
100 % 2017 Annual "Full Funding" Contributions:	\$474,320
Baseline contributions(min to keep Reserves above \$0):	\$241,000
Most Recent Budgeted Reserve Contribution Rate:	\$250,675



Economic Assumptions:

Net Annual "After Tax" Interest Earnings Accruing to Reserves.... 0.95%

Annual Inflation Rate..... 3.00%

The Water Reserves is currently 4% Funded. There is a High risk of needing a Special Assessment at some time in the future. In order to get to 100% funded in the 30 year period the assessment would need a one year special assessment of \$760 per lot and an increase \$165 per lot continuing assessment plus an 3% annual increase thereafter. In order to maintain a baseline funding in the 30 year period the assessment would need a one year special assessment of \$760 plus an 3% annual increase thereafter.

The next two pages contain the component list. Components due to be renovate in 2017 are mark with yellow. Components due to be renovate the four years following 2017 are mark in green. Following the component list is the Budget Disclosure statement for General Reserves included tables of projections for the next 30 years for the current budgeted plan and the fully funded plan.

This reserve study meets all requirements of RCW 64.38.070. This study was done by the Clearwood Treasurer and Finance Committee chairman without the assistance of a reserve study professional. **This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component.**

#	Component	Useful Life (yrs)	Remaining Useful Life (yrs)	Current Cost Estimate
Community Property				
100	Sanitary Survey	3	2	\$5,665
101	Water System Plan - Update	6	0	\$51,500
102	Wells - Replace with New Well 4	100	99	\$412,000
103	Well Pump / Motor #1 - Replace	10	1	\$11,330
104	Well #1 - Replace Casing	80	36	\$139,050
105	Well Pump / Motor #2 - Replace	10	6	\$16,995
106	Well #2 - Replace Casing	80	46	\$139,050
107	Well Pump / Motor #4 - Replace	10	0	\$21,115
108	Well #4 - Replace Casing	80	56	\$139,050
109	Source Flow Meters - Replace	5	4	\$7,210
110	Storage Tank #1 - Replace	80	34	\$638,600
111	Storage Tank #1 -Coat Exterior Only	20	14	\$27,810
112	Storage Tank #1 - Coat Interior	20	17	\$109,180
114	Storage Tank #2 - Replace	80	54	\$870,350
115	Storage Tank #2 -Coat Exterior Only	20	14	\$66,950
116	Storage Tank #2 - Coat Interior	20	14	\$257,500
118	Storage Reservoirs - Dive Inspect	5	3	\$6,953
120	Reservoir Cathodic Protection 1	20	16	\$14,420
121	Reservoir Cathodic Protection 2	20	6	\$20,600
122	Water Hammer Surge Tanks	50	3	\$13,390
290	Security Cameras	8	7	\$5,150
300	Water Main Project D-1: Replace	60	1	\$482,040
301	Water Main Project D-2: Replace	60	4	\$352,260
302	Water Main Project D-3: Replace	60	7	\$372,860
303	Water Main Project D-4: Replace	60	10	\$496,460
304	Water Main Project D-5a: Replace	60	13	\$493,370
305	Water Main Project D-5b: Replace	60	16	\$494,400
306	Water Main Project D-6: Replace	60	19	\$551,050
307	Water Main Project D-7: Replace	60	22	\$282,220
308	Remaining Water Main Lines -Replace	60	25	\$751,900
309	Remaining Water Main Lines -Replace	60	28	\$751,900
310	Main Lines Replaced 2002, Cycle	60	46	\$921,850
310	Main Lines Replaced 2009, Cycle	60	53	\$540,750
311	Main Valves- Rplc (2002)	30	16	\$98,211
311	Main Valves- Rplc (2009)	30	23	\$68,341
311	Main Valves- Rplc (other)	30	25	\$60,255
311	Main Valves- Rplc (Phase 1)	30	1	\$52,530
311	Main Valves- Rplc (Phase 2)	30	4	\$51,964
311	Main Valves- Rplc (Phase 3)	30	7	\$22,351
311	Main Valves- Rplc (Phase 4)	30	10	\$29,767
311	Main Valves- Rplc (Phase 5a)	30	13	\$11,330
311	Main Valves- Rplc (Phase 5b)	30	16	\$10,300
311	Main Valves- Rplc (Phase 6)	30	19	\$27,244
311	Main Valves- Rplc (Phase 7)	30	22	\$12,927
312	Hydrant near Maint. Bldg.	30	26	\$5,150
312	Hydrants - Rplc (2002)	30	15	\$47,380
312	Hydrants - Rplc (2009)	30	22	\$30,900
312	Hydrants - Rplc (other)	30	17	\$37,080
312	Hydrants - Rplc (Phase 1)	30	1	\$12,360
312	Hydrants - Rplc (Phase 2)	30	4	\$22,660
312	Hydrants - Rplc (Phase 3)	30	7	\$26,780

#	Component	Useful Life (yrs)	Remaining Useful Life (yrs)	Current Cost Estimate
312	Hydrants - Rplc (Phase 4)	30	10	\$25,750
312	Hydrants - Rplc (Phase 5a)	30	13	\$11,330
312	Hydrants - Rplc (Phase 5b)	30	16	\$15,450
312	Hydrants - Rplc (Phase 6)	30	19	\$27,810
312	Hydrants - Rplc (Phase 7)	30	22	\$5,150
316	Water Service Meters -Rplc(Phase1)	10	4	\$6,953
316	Water Service Meters -Rplc(Phase2)	10	5	\$6,953
316	Water Service Meters -Rplc(Phase3)	10	6	\$6,953
316	Water Service Meters -Rplc(Phase4)	10	7	\$6,953
316	Water Service Meters -Rplc(Phase5)	10	8	\$6,953
316	Water Service Meters -Rplc(Phase6)	10	9	\$6,953
316	Water Service Meters -Rplc(Phase7)	10	0	\$6,953
316	Water Service Meters -Rplc(Phase8)	10	1	\$6,953
316	Water Service Meters -Rplc(Phase9)	10	2	\$6,953
316	Water Service Meters-Rplc (Phase10)	10	3	\$6,953
317	Water Meter Setters -Rplc(Phase1)	20	14	\$23,051
317	Water Meter Setters -Rplc(Phase2)	20	15	\$23,051
317	Water Meter Setters -Rplc(Phase3)	20	16	\$23,051
317	Water Meter Setters -Rplc(Phase4)	20	17	\$23,051
317	Water Meter Setters -Rplc(Phase5)	20	18	\$23,051
317	Water Meter Setters -Rplc(Phase6)	20	19	\$23,051
317	Water Meter Setters -Rplc(Phase7)	20	0	\$23,051
317	Water Meter Setters -Rplc(Phase8)	20	1	\$23,051
317	Water Meter Setters -Rplc(Phase9)	20	2	\$23,051
317	Water Meter Setters-Rplc (Phase10)	20	3	\$23,051
323	Cla-Val Valves - Repair/Replace	5	3	\$4,635
324	Leak Detection	4	3	\$6,953
400	Well 4 Control Systems - Replace	25	8	\$20,600
400	Wells 1 & 2 Cntrl Systems - Replace	25	8	\$34,505
401	Caustic Systems - Repair/Replace	30	13	\$23,175
402	Well #1 & #2 Generator & Controls	50	47	\$41,200
402	Well #4 Generator - Replace	50	29	\$45,063
403	Telemetry System - Replace	20	7	\$19,570
410	Well House 4 - Replace	40	10	\$11,330
410	Well Houses 1, 2 - Replace	40	5	\$23,175
411	Well Sites Fence - Replace	30	11	\$14,935
412	Reservoir Fences - Replace	30	11	\$10,609
450	Water Trailer	10	8	\$5,665
450	Water Truck - Replace	10	8	\$23,175
90	Total Funded Components			

Assessment and Reserve Funding Disclosure Summary

Clearwood Community Association Water Reserves

For Fiscal Year Beginning: 1/1/2017

of units: 1355

a)

Budgeted Amounts:	Total	Per Unit	
Reserve Contributions	\$250,675	\$185	per: Year
Operating Assessments	\$170,000	\$125.36	

Recommended Amount:	Total	Per Unit	
Reserve Contributions	\$474,320	\$350.05	per: Year
Funding Plan Objective	Full Funding		

b) Additional assessments that have already been scheduled to be imposed or charged, regardless of the purpose, if they have been approved by the board and/or members: None

c) Based on the most recent Reserve Study and other information available to the Board of Directors, will currently projected Reserve account balances be sufficient at the end of each year to meet the association's obligation for repair and/or replacement of major components during the next 30 years? **NO**

d) If the answer to c) is no, what additional assessments or other contributions to Reserves would be necessary to ensure that sufficient Reserve Funds will be available each year during the next 30 years?

Approximate Fiscal Year Assessment will be due	Average Amount of Special one time Special Assessment per unit
2030	\$1,000
2036	\$1,500
2042	\$1,100

e)

All computations/disclosures are based on the fiscal year start date of:	1/1/2017
Fully Funded Balance (based on Formula defined in RCW 64.34.020)	\$5,706,985
Projected Reserve Fund Balance:	\$217,600
Percent Funded:	3.8%
Reserve Deficit on a mathematical avg-per-unit basis:	\$4,051

From 2017 Reserve Study

f/g) See attached 30-yr Summary Tables, showing the projected Reserve Funding Plan, Reserve Balance, and Percent Funded for the current budgeted and the fully funded Reserve Funding Plans.

Table 1: 30-Year Current Funding Summary

Fiscal Year Start: 01/01/17

Interest: 1.0%

Inflation: 3.0%

Reserve Fund Strength Calculations
(All values as of Fiscal Year Start Date)

Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	Reserve Contribs.	Loans or Special Assmts	Interest Income	Reserve Expenses
2017	\$217,600	\$5,706,985	3.8%	High	\$250,675	\$0	\$2,783	\$102,619
2018	\$368,439	\$6,015,116	6.1%	High	\$250,675	\$0	\$1,821	\$605,912
2019	\$15,023	\$5,821,377	0.3%	High	\$250,675	\$0	\$1,159	\$37,841
2020	\$229,015	\$6,214,437	3.7%	High	\$250,675	\$0	\$3,058	\$67,677
2021	\$415,071	\$6,596,279	6.3%	High	\$250,675	\$0	\$2,788	\$496,401
2022	\$172,133	\$6,555,944	2.6%	High	\$250,675	\$0	\$2,640	\$41,493
2023	\$383,955	\$6,991,146	5.5%	High	\$250,675	\$0	\$4,312	\$114,686
2024	\$524,257	\$7,372,454	7.1%	High	\$250,675	\$0	\$3,495	\$566,500
2025	\$211,928	\$7,308,524	2.9%	High	\$250,675	\$0	\$2,564	\$137,001
2026	\$328,166	\$7,694,011	4.3%	High	\$250,675	\$0	\$4,239	\$18,479
2027	\$564,601	\$8,222,361	6.9%	High	\$250,675	\$0	\$2,791	\$794,758
2028	\$23,310	\$7,976,491	0.3%	High	\$250,675	\$0	\$1,046	\$78,132
2029	\$196,899	\$8,471,151	2.3%	High	\$250,675	\$0	\$2,677	\$83,339
2030	\$366,911	\$8,985,363	4.1%	High	\$250,675	\$0	\$789	\$819,067
2031	-\$200,692	\$8,767,578	0.0%	High	\$250,675	\$0	\$0	\$597,683
2032	-\$547,700	\$8,781,975	0.0%	High	\$250,675	\$0	\$0	\$139,417
2033	-\$436,442	\$9,279,828	0.0%	High	\$250,675	\$0	\$0	\$1,090,846
2034	-\$1,276,613	\$8,823,983	0.0%	High	\$250,675	\$0	\$0	\$300,701
2035	-\$1,326,639	\$9,179,993	0.0%	High	\$250,675	\$0	\$0	\$207,580
2036	-\$1,283,544	\$9,654,628	0.0%	High	\$250,675	\$0	\$0	\$1,140,252
2037	-\$2,173,121	\$9,195,241	0.0%	High	\$250,675	\$0	\$0	\$102,558
2038	-\$2,025,004	\$9,803,660	0.0%	High	\$250,675	\$0	\$0	\$76,893
2039	-\$1,851,222	\$10,469,913	0.0%	High	\$250,675	\$0	\$0	\$692,097
2040	-\$2,292,645	\$10,536,033	0.0%	High	\$250,675	\$0	\$0	\$252,026
2041	-\$2,293,995	\$11,071,357	0.0%	High	\$250,675	\$0	\$0	\$133,478
2042	-\$2,176,799	\$11,759,209	0.0%	High	\$250,675	\$0	\$0	\$1,715,029
2043	-\$3,641,153	\$10,853,496	0.0%	High	\$250,675	\$0	\$0	\$119,394
2044	-\$3,509,872	\$11,579,354	0.0%	High	\$250,675	\$0	\$0	\$74,358
2045	-\$3,333,555	\$12,389,074	0.0%	High	\$250,675	\$0	\$0	\$1,828,695
2046	-\$4,911,575	\$11,432,285	0.0%	High	\$250,675	\$0	\$0	\$152,918

Table 2: 30-Year Reserve 100% Funding Summary

Fiscal Year Start: 01/01/17

Interest: 1.0%

Inflation: 3.0%

Reserve Fund Strength Calculations
(All values as of Fiscal Year Start Date)

Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	Reserve Contribs.	Loans or Special Assmts	Interest Income	Reserve Expenses
2017	\$217,600	\$5,706,985	3.8%	High	\$474,320	\$1,029,800	\$8,762	\$102,619
2018	\$1,627,864	\$6,015,116	27.1%	High	\$488,550	\$0	\$14,972	\$605,912
2019	\$1,525,474	\$5,821,377	26.2%	High	\$503,206	\$0	\$16,775	\$37,841
2020	\$2,007,614	\$6,214,437	32.3%	Med	\$518,302	\$0	\$21,305	\$67,677
2021	\$2,479,545	\$6,596,279	37.6%	Med	\$533,851	\$0	\$23,837	\$496,401
2022	\$2,540,832	\$6,555,944	38.8%	Med	\$549,867	\$0	\$26,669	\$41,493
2023	\$3,075,874	\$6,991,146	44.0%	Med	\$566,363	\$0	\$31,503	\$114,686
2024	\$3,559,055	\$7,372,454	48.3%	Med	\$583,354	\$0	\$34,039	\$566,500
2025	\$3,609,948	\$7,308,524	49.4%	Med	\$600,854	\$0	\$36,657	\$137,001
2026	\$4,110,458	\$7,694,011	53.4%	Med	\$618,880	\$0	\$42,084	\$18,479
2027	\$4,752,944	\$8,222,361	57.8%	Med	\$637,446	\$0	\$44,600	\$794,758
2028	\$4,640,232	\$7,976,491	58.2%	Med	\$656,570	\$0	\$47,034	\$78,132
2029	\$5,265,704	\$8,471,151	62.2%	Med	\$676,267	\$0	\$53,071	\$83,339
2030	\$5,911,703	\$8,985,363	65.8%	Med	\$696,555	\$0	\$55,822	\$819,067
2031	\$5,845,012	\$8,767,578	66.7%	Med	\$717,452	\$0	\$56,341	\$597,683
2032	\$6,021,122	\$8,781,975	68.6%	Med	\$738,975	\$0	\$60,311	\$139,417
2033	\$6,680,991	\$9,279,828	72.0%	Low	\$761,144	\$0	\$62,174	\$1,090,846
2034	\$6,413,463	\$8,823,983	72.7%	Low	\$783,979	\$0	\$63,499	\$300,701
2035	\$6,960,240	\$9,179,993	75.8%	Low	\$807,498	\$0	\$69,273	\$207,580
2036	\$7,629,431	\$9,654,628	79.0%	Low	\$831,723	\$0	\$71,324	\$1,140,252
2037	\$7,392,226	\$9,195,241	80.4%	Low	\$856,675	\$0	\$74,130	\$102,558
2038	\$8,220,473	\$9,803,660	83.9%	Low	\$878,092	\$0	\$82,258	\$76,893
2039	\$9,103,929	\$10,469,913	87.0%	Low	\$900,044	\$0	\$87,857	\$692,097
2040	\$9,399,733	\$10,536,033	89.2%	Low	\$922,545	\$0	\$92,886	\$252,026
2041	\$10,163,138	\$11,071,357	91.8%	Low	\$945,609	\$0	\$100,846	\$133,478
2042	\$11,076,114	\$11,759,209	94.2%	Low	\$969,249	\$0	\$102,125	\$1,715,029
2043	\$10,432,458	\$10,853,496	96.1%	Low	\$993,480	\$0	\$103,711	\$119,394
2044	\$11,410,255	\$11,579,354	98.5%	Low	\$1,018,317	\$0	\$113,374	\$74,358
2045	\$12,467,588	\$12,389,074	100.6%	Low	\$1,043,775	\$0	\$115,215	\$1,828,695
2046	\$11,797,883	\$11,432,285	103.2%	Low	\$1,069,869	\$0	\$116,944	\$152,918