



# Attachment C

## Economic Evaluation

### Capital Cash Flows for Each Option

Table 32  
Tualatin Valley Water District  
Source Options PV Analysis  
TBWSP with Federal Cost Share Costs & TVWD Share

Year	Project Cost Estimates									TVWD Cost Share									TVWD Costs								
	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines
2012										44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2013										44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2014										44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2015	\$6,500,000									44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	2,893,792	0	0	0	0	0	0	0	0
2016	\$30,203,043									44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	13,446,358	0	0	0	0	0	0	0	0
2017	\$10,906,047									44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	4,855,359	0	0	0	0	0	0	0	0
2018	\$17,658,746				\$62,718,750					44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	7,861,652	0	0	0	26,170,084	0	0	0	0
2019	\$17,658,746				\$62,718,750					44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	7,861,652	0	0	0	26,170,084	0	0	0	0
2020	\$20,264,225				\$62,718,750					44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	9,021,608	0	0	0	26,170,084	0	0	0	0
2021	\$14,323,265				\$62,718,750					44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	6,376,700	0	0	0	26,170,084	0	0	0	0
2022		\$66,850,000								44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	19,964,000	0	0	0	0	0	0	0
2023	\$1,553,852	\$66,850,000				\$21,796,875				44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	691,773	19,964,000	0	0	0	13,999,007	0	0	0
2024	\$2,330,777	\$66,850,000				\$21,796,875				44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	1,037,659	19,964,000	0	0	0	13,999,007	0	0	0
2025	\$4,534,159	\$66,850,000				\$65,390,625	\$2,187,500	\$7,615,625	\$35,125,000	44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	2,018,602	19,964,000	0	0	0	41,997,022	2,021,780	4,640,456	9,276,513
2026	\$4,534,159					\$65,390,625	\$2,187,500	\$7,615,625	\$35,125,000	44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	2,018,602	0	0	0	0	41,997,022	2,021,780	4,640,456	9,276,513
2027	\$1,292,785								\$35,125,000	44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	575,546	0	0	0	0	0	0	0	9,276,513
2028	\$1,292,785								\$35,125,000	44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	575,546	0	0	0	0	0	0	0	9,276,513
2029										44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2030										44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2031										44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2032										44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2033										44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2034										44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2035	\$2,160,916									44.5%	29.9%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	962,037	0	0	0	0	0	0	0	0
2036	\$3,241,373					\$29,062,500				44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	1,443,055	0	0	0	0	14,826,008	0	0	0
2037	\$3,241,373					\$29,062,500				44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	1,443,055	0	0	0	0	14,826,008	0	0	0
2038										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2039										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2040										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2041										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2042										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2043										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2044										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2045										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2046										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2047										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2048										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2049										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2050										44.5%	29.9%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0

Table 40  
Tualatin Valley Water District  
Source Options PV Analysis  
TBWSP without Federal Cost Share Costs & TVWD Share

Year	Project Cost Estimates									TVWD Cost Share									TVWD Costs								
	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines
2012										46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2013										46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2014										46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2015	\$6,500,000									46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	3,046,039	0	0	0	0	0	0	0	0
2016	\$30,203,043									46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	14,153,790	0	0	0	0	0	0	0	0
2017	\$10,906,047									46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	5,110,806	0	0	0	0	0	0	0	0
2018	\$17,658,746				\$62,718,750					46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	8,275,265	0	0	0	26,170,084	0	0	0	0
2019	\$17,658,746				\$62,718,750					46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	8,275,265	0	0	0	26,170,084	0	0	0	0
2020	\$20,264,225				\$62,718,750					46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	9,496,248	0	0	0	26,170,084	0	0	0	0
2021	\$14,323,265				\$62,718,750					46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	6,712,187	0	0	0	26,170,084	0	0	0	0
2022		\$185,000,000								46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	80,290,000	0	0	0	0	0	0	0
2023	\$1,553,852	\$185,000,000				\$21,796,875				46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	728,168	80,290,000	0	0	0	13,999,007	0	0	0
2024	\$2,330,777	\$185,000,000				\$21,796,875				46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	1,092,252	80,290,000	0	0	0	13,999,007	0	0	0
2025	\$4,534,159	\$185,000,000				\$65,390,625	\$2,187,500	\$7,615,625	\$35,125,000	46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	2,124,803	80,290,000	0	0	0	41,997,022	2,021,780	4,640,456	9,276,513
2026	\$4,534,159					\$65,390,625	\$2,187,500	\$7,615,625	\$35,125,000	46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	2,124,803	0	0	0	0	41,997,022	2,021,780	4,640,456	9,276,513
2027	\$1,292,785								\$35,125,000	46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	605,827	0	0	0	0	0	0	0	9,276,513
2028	\$1,292,785								\$35,125,000	46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	605,827	0	0	0	0	0	0	0	9,276,513
2029										46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2030										46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2031										46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2032										46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2033										46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2034										46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2035	\$2,160,916									46.9%	43.4%	0.0%	0.0%	41.7%	64.2%	92.4%	60.9%	26.4%	1,012,651	0	0	0	0	0	0	0	0
2036	\$3,241,373					\$29,062,500				46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	1,518,977	0	0	0	0	14,826,008	0	0	0
2037	\$3,241,373					\$29,062,500				46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	1,518,977	0	0	0	0	14,826,008	0	0	0
2038										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2039										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2040										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2041										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2042										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2043										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2044										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2045										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2046										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2047										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2048										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2049										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0
2050										46.9%	43.4%	0.0%	0.0%	41.7%	51.0%	92.4%	60.9%	26.4%	0	0	0	0	0	0	0	0	0

Table 34  
Tualatin Valley Water District  
Source Options PV Analysis  
Mid-Willamette Costs & TVWD Share

Year	Project Cost Estimates									TVWD Cost Share									TVWD Costs								
	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines
2012										58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2013										58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0
2014										58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0
2015	\$7,172,923									58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	4,191,839	0	0	0	0	0	0	0	0
2016	\$34,310,344		\$1,025,000			\$21,406,328		\$79,922,375		58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	20,050,883	0	0	0	0	0	0	0	0
2017	\$44,938,263					\$21,406,328		\$79,922,375		58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	26,261,813	0	0	0	0	0	0	0	0
2018	\$44,774,420					\$21,406,328	\$17,469,400	\$7,920,250	\$79,922,375	58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	26,166,064	0	0	0	0	0	0	0	0
2019	\$45,238,172				\$9,146,800	\$21,406,328	\$17,469,400	\$7,920,250	\$79,922,375	58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	26,437,080	0	0	0	0	0	0	0	0
2020	\$17,447,833					\$21,406,328	\$17,469,400	\$7,920,250	\$79,922,375	58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	10,196,472	0	0	0	0	0	0	0	0
2021	\$13,305,733					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	7,775,838	0	0	0	0	0	0	0	0
2022	\$795,610					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	464,953	0	0	0	0	0	0	0	0
2023	\$1,141,841		\$1,025,000			\$21,406,328			\$79,922,375	58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	667,289	0	0	0	0	14,380,025	0	0	40,416,866
2024	\$1,742,795		\$2,009,000			\$21,406,328			\$79,922,375	58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	1,018,485	0	0	0	0	14,380,025	0	0	40,416,866
2025	\$922,185		\$8,519,800		\$9,146,800	\$21,406,328	\$17,469,400	\$7,920,250	\$79,922,375	58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	538,923	0	0	0	3,073,453	14,380,025	9,324,846	4,826,075	40,416,866
2026	\$922,185		\$4,846,200			\$21,406,328	\$17,469,400	\$7,920,250	\$79,922,375	58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	538,923	0	0	0	0	14,380,025	9,324,846	4,826,075	40,416,866
2027	\$627,919					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	67.2%	53.4%	60.9%	50.6%	366,954	0	0	0	0	0	0	0	0
2028	\$916,982					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.5%	53.4%	60.9%	50.6%	535,882	0	0	0	0	2,163,160	0	0	0
2029	\$1,380,734					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.5%	53.4%	60.9%	50.6%	806,898	0	0	0	0	2,163,160	0	0	0
2030	\$727,815					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.5%	53.4%	60.9%	50.6%	425,333	0	0	0	0	2,163,160	0	0	0
2031	\$727,815					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.5%	53.4%	60.9%	50.6%	425,333	0	0	0	0	2,163,160	0	0	0
2032						\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.5%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0
2033	\$627,919					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.5%	53.4%	60.9%	50.6%	366,954	0	0	0	0	0	0	0	0
2034	\$916,982					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.2%	53.4%	60.9%	50.6%	535,882	0	0	0	0	2,149,863	0	0	0
2035	\$1,380,734					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.2%	53.4%	60.9%	50.6%	806,898	0	0	0	0	2,149,863	0	0	0
2036	\$727,815					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.2%	53.4%	60.9%	50.6%	425,333	0	0	0	0	2,149,863	0	0	0
2037	\$727,815					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.2%	53.4%	60.9%	50.6%	425,333	0	0	0	0	2,149,863	0	0	0
2038						\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.2%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0
2039						\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.2%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0
2040						\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.2%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0
2041	\$627,919					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	50.2%	53.4%	60.9%	50.6%	366,954	0	0	0	0	0	0	0	0
2042	\$916,982					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	49.6%	53.4%	60.9%	50.6%	535,882	0	0	0	0	2,124,426	0	0	0
2043	\$1,380,734					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	49.6%	53.4%	60.9%	50.6%	806,898	0	0	0	0	2,124,426	0	0	0
2044	\$727,815					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	49.6%	53.4%	60.9%	50.6%	425,333	0	0	0	0	2,124,426	0	0	0
2045	\$727,815					\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	49.6%	53.4%	60.9%	50.6%	425,333	0	0	0	0	2,124,426	0	0	0
2046						\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	49.6%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0
2047						\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	49.6%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0
2048						\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	49.6%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0
2049						\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	49.6%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0
2050						\$4,281,266				58.4%	0.0%	0.0%	0.0%	33.6%	49.6%	53.4%	60.9%	50.6%	0	0	0	0	0	0	0	0	0

Table 38  
Tualatin Valley Water District  
Source Options PV Analysis  
Portland with Partners Costs & TVWD Share

Year	Project Cost Estimates									TVWD Cost Share									TVWD Costs								
	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines
2012										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2013										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2014										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2015	\$875,593									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	243,898	0	0	0	0	0	0	0	0
2016	\$26,446,843									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	7,366,815	0	0	0	0	0	0	0	0
2017	\$32,706,480									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	9,110,448	0	0	0	0	0	0	0	0
2018	\$36,706,480									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	10,224,655	0	0	0	0	0	0	0	0
2019	\$32,706,480									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	9,110,448	0	0	0	0	0	0	0	0
2020	\$8,886,416									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	2,475,327	0	0	0	0	0	0	0	0
2021	\$8,886,416									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	2,475,327	0	0	0	0	0	0	0	0
2022	\$2,626,779								\$5,493,146	27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	731,694	0	0	0	0	0	0	0	1,727,003
2023	\$6,010,344		\$1,025,000						\$5,493,146	27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	1,674,192	0	0	0	0	0	0	0	1,727,003
2024	\$19,233,100		\$2,009,000			\$10,168,031			\$153,808,085	27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	5,357,414	0	0	0	0	0	0	0	48,356,072
2025	\$32,756,373		\$8,519,800			\$13,218,441	\$4,782,050		\$153,808,085	27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	9,124,345	0	0	0	0	0	1,594,017	0	48,356,072
2026	\$34,923,040		\$4,846,200			\$13,218,441	\$4,782,050	\$7,920,250	\$153,808,085	27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	9,727,874	0	0	0	0	0	1,594,017	4,826,075	48,356,072
2027	\$34,923,040					\$13,218,441		\$7,920,250		27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	9,727,874	0	0	0	0	0	0	4,826,075	0
2028	\$28,912,696					\$3,050,409				27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	8,053,682	0	0	0	0	0	0	0	0
2029	\$390,456									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	108,762	0	0	0	0	0	0	0	0
2030	\$664,996									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	185,236	0	0	0	0	0	0	0	0
2031	\$2,831,663									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	788,765	0	0	0	0	0	0	0	0
2032	\$2,831,663									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	788,765	0	0	0	0	0	0	0	0
2033	\$2,831,663									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	788,765	0	0	0	0	0	0	0	0
2034						\$3,050,409				27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2035						\$3,050,409				27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2036						\$3,050,409				27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2037						\$3,050,409				27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2038										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2039										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2040										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2041										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2042										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2043										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2044										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2045										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2046										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2047										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2048										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2049										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0
2050										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	31.4%	0	0	0	0	0	0	0	0	0

Table 36  
Tualatin Valley Water District  
Source Options PV Analysis  
Portland without Partners Costs & TVWD Share

Year	Project Cost Estimates									TVWD Cost Share									TVWD Costs								
	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines
2012										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2013										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2014										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2015	\$875,593									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	243,898	0	0	0	0	0	0	0	0
2016	\$26,446,843									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	7,366,815	0	0	0	0	0	0	0	0
2017	\$32,706,480									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	9,110,448	0	0	0	0	0	0	0	0
2018	\$36,706,480									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	10,224,655	0	0	0	0	0	0	0	0
2019	\$32,706,480									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	9,110,448	0	0	0	0	0	0	0	0
2020	\$8,886,416									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	2,475,327	0	0	0	0	0	0	0	0
2021	\$8,886,416									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	2,475,327	0	0	0	0	0	0	0	0
2022	\$2,626,779								\$3,137,188	27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	731,694	0	0	0	0	0	0	0	3,137,188
2023	\$6,010,344		\$1,025,000						\$3,137,188	27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	1,674,192	0	0	0	0	0	0	0	3,137,188
2024	\$19,233,100		\$2,009,000			\$10,168,031			\$87,841,250	27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	5,357,414	0	0	0	0	0	0	0	87,841,250
2025	\$32,756,373		\$8,519,800			\$13,218,441	\$4,782,050		\$87,841,250	27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	9,124,345	0	0	0	0	0	1,594,017	0	87,841,250
2026	\$34,923,040		\$4,846,200			\$13,218,441	\$4,782,050	\$7,920,250	\$87,841,250	27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	9,727,874	0	0	0	0	0	1,594,017	4,826,075	87,841,250
2027	\$34,923,040					\$13,218,441		\$7,920,250		27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	9,727,874	0	0	0	0	0	0	4,826,075	0
2028	\$28,912,696					\$3,050,409				27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	8,053,682	0	0	0	0	0	0	0	0
2029	\$390,456									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	108,762	0	0	0	0	0	0	0	0
2030	\$664,996									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	185,236	0	0	0	0	0	0	0	0
2031	\$2,831,663									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	788,765	0	0	0	0	0	0	0	0
2032	\$2,831,663									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	788,765	0	0	0	0	0	0	0	0
2033	\$2,831,663									27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	788,765	0	0	0	0	0	0	0	0
2034						\$3,050,409				27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2035						\$3,050,409				27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2036						\$3,050,409				27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2037						\$3,050,409				27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2038										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2039										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2040										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2041										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2042										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2043										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2044										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2045										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2046										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2047										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2048										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2049										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0
2050										27.9%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	60.9%	100.0%	0	0	0	0	0	0	0	0	0

Table 42  
Tualatin Valley Water District  
Source Options PV Analysis  
Northern Groundwater Costs & TVWD Share

Year	Project Cost Estimates									TVWD Cost Share									TVWD Costs								
	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines	Non-Construction Costs	40' Dam Construction	Short Dam Construction	Wells	River Intake and Pumping	Water Treatment Plant	Booster Pumping Stations	20 MG Reservoir	Pipelines
2012										58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2013										58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	0	0	0	0	0	0	0	0	0
2014										58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	0	0	0	0	0	0	0	0	0
2015	\$9,554,290									58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	5,611,556	0	0	0	0	0	0	0	0
2016	\$39,284,815									58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	23,073,294	0	0	0	0	0	0	0	0
2017	\$50,891,181									58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	29,890,103	0	0	0	0	0	0	0	0
2018	\$53,348,212									58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	31,333,201	0	0	0	0	0	0	0	0
2019	\$54,612,511									58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	32,075,766	0	0	0	0	0	0	0	0
2020	\$23,250,621									58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	13,655,872	0	0	0	0	0	0	0	0
2021	\$17,453,285									58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	10,250,902	0	0	0	0	0	0	0	0
2022	\$1,314,121									58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	771,828	0	0	0	0	0	0	0	0
2023	\$1,837,117		\$1,025,000			\$32,734,975		\$86,430,858		58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	58.4%	1,079,001	0	0	0	21,990,216	0	0	0	50,446,223
2024	\$2,862,308		\$2,009,000	\$15,031,250		\$32,734,975		\$86,430,858		58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	58.4%	1,681,130	0	10,097,470	0	21,990,216	0	0	0	50,446,223
2025	\$1,523,186		\$8,519,800	\$15,031,250		\$58,922,955	\$15,940,600	\$7,920,250	\$93,709,246	58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	58.3%	894,618	0	10,097,470	0	39,582,388	9,713,144	4,826,075	54,661,600	
2026	\$1,523,186		\$4,846,200			\$58,922,955		\$7,920,250	\$86,430,858	58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	58.4%	894,618	0	0	0	39,582,388	0	4,826,075	50,446,223	
2027	\$1,314,121									58.7%	0.0%	0.0%	67.2%	0.0%	67.2%	60.9%	60.9%	0.0%	771,828	0	0	0	0	0	0	0	0
2028	\$1,837,117									58.7%	0.0%	0.0%	50.5%	0.0%	50.5%	60.9%	60.9%	50.5%	1,079,001	0	0	0	0	0	0	0	0
2029	\$2,862,308			\$3,006,250						58.7%	0.0%	0.0%	50.5%	0.0%	50.5%	60.9%	60.9%	50.5%	1,681,130	0	0	1,518,944	0	0	0	0	0
2030	\$1,523,186			\$3,006,250		\$13,093,990			\$3,639,194	58.7%	0.0%	0.0%	50.5%	0.0%	50.5%	60.9%	60.9%	50.5%	894,618	0	0	1,518,944	0	6,615,894	0	0	1,838,746
2031	\$1,523,186					\$13,093,990				58.7%	0.0%	0.0%	50.5%	0.0%	50.5%	60.9%	60.9%	50.5%	894,618	0	0	0	6,615,894	0	0	0	0
2032										58.7%	0.0%	0.0%	50.5%	0.0%	50.5%	60.9%	60.9%	50.5%	0	0	0	0	0	0	0	0	0
2033	\$1,314,121									58.7%	0.0%	0.0%	50.5%	0.0%	50.5%	60.9%	60.9%	50.5%	771,828	0	0	0	0	0	0	0	0
2034	\$1,837,117									58.7%	0.0%	0.0%	50.2%	0.0%	50.2%	60.9%	60.9%	50.2%	1,079,001	0	0	0	0	0	0	0	0
2035	\$2,862,308			\$3,006,250						58.7%	0.0%	0.0%	50.2%	0.0%	50.2%	60.9%	60.9%	50.2%	1,681,130	0	0	1,509,606	0	0	0	0	0
2036	\$1,523,186			\$3,006,250		\$13,093,990			\$3,639,194	58.7%	0.0%	0.0%	50.2%	0.0%	50.2%	60.9%	60.9%	50.2%	894,618	0	0	1,509,606	0	6,575,226	0	0	1,827,443
2037	\$1,523,186					\$13,093,990				58.7%	0.0%	0.0%	50.2%	0.0%	50.2%	60.9%	60.9%	50.2%	894,618	0	0	0	6,575,226	0	0	0	0
2038										58.7%	0.0%	0.0%	50.2%	0.0%	50.2%	60.9%	60.9%	50.2%	0	0	0	0	0	0	0	0	0
2039										58.7%	0.0%	0.0%	50.2%	0.0%	50.2%	60.9%	60.9%	50.2%	0	0	0	0	0	0	0	0	0
2040										58.7%	0.0%	0.0%	50.2%	0.0%	50.2%	60.9%	60.9%	50.2%	0	0	0	0	0	0	0	0	0
2041	\$1,314,121									58.7%	0.0%	0.0%	50.2%	0.0%	50.2%	60.9%	60.9%	50.2%	771,828	0	0	0	0	0	0	0	0
2042	\$1,837,117									58.7%	0.0%	0.0%	49.6%	0.0%	49.6%	60.9%	60.9%	49.6%	1,079,001	0	0	0	0	0	0	0	0
2043	\$2,862,308			\$3,006,250		\$13,093,990			\$3,639,194	58.7%	0.0%	0.0%	49.6%	0.0%	49.6%	60.9%	60.9%	49.6%	1,681,130	0	0	1,491,745	0	0	0	0	0
2044	\$1,523,186			\$3,006,250		\$13,093,990			\$3,639,194	58.7%	0.0%	0.0%	49.6%	0.0%	49.6%	60.9%	60.9%	49.6%	894,618	0	0	1,491,745	0	6,497,428	0	0	1,805,821
2045	\$1,523,186					\$13,093,990				58.7%	0.0%	0.0%	49.6%	0.0%	49.6%	60.9%	60.9%	49.6%	894,618	0	0	0	6,497,428	0	0	0	0
2046										58.7%	0.0%	0.0%	49.6%	0.0%	49.6%	60.9%	60.9%	49.6%	0	0	0	0	0	0	0	0	0
2047										58.7%	0.0%	0.0%	49.6%	0.0%	49.6%	60.9%	60.9%	49.6%	0	0	0	0	0	0	0	0	0
2048										58.7%	0.0%	0.0%	49.6%	0.0%	49.6%	60.9%	60.9%	49.6%	0	0	0	0	0	0	0	0	0
2049										58.7%	0.0%	0.0%	49.6%	0.0%	49.6%	60.9%	60.9%	49.6%	0	0	0	0	0	0	0	0	0
2050										58.7%	0.0%	0.0%	49.6%	0.0%	49.6%	60.9%	60.9%	49.6%	0	0	0	0	0	0	0	0	0